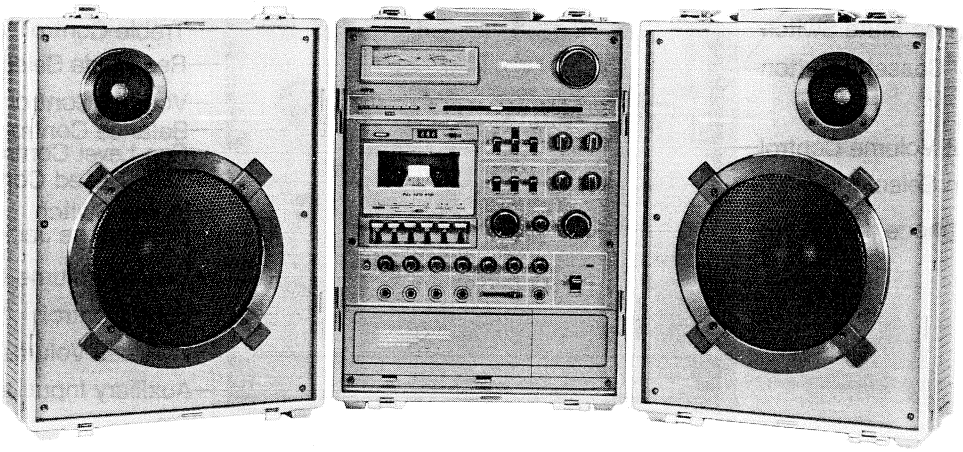
ORDER NO. RD8004-5085C

Service Manual

Radio Cassette

RX-6400

FM/AM STEREO RADIO CASSETTE



SPECIFICATIONS

TAPE DECK SECTION

Track System:	4-track, 2-channel
Recording System:	AC Bias, 57 kHz
Erasing System:	AC Erase, 57 kHz
Wow and Flutter:	0.09% (WRMS)
Frequency Response:	
Normal;	60 ~ 15,000 Hz
CrO_2;	50 ~ 16,000 Hz
Fe-Cr;	50 ~ 16,000 Hz
Recording Time:	1 Hour (C-60)
Monitoring System:	Variable Sound Monitor

RADIO SECTION

Frequency Range:	FM 88 ~ 108 MHz
	AM 525 ~ 1,605 kHz
Intermediate Frequency:	FM 10.7 MHz
	AM 450 kHz
Sensitivity:	FM 5μV for 50 mW output
	AM 100μV/m for 50 mW output
Maximum Power Output:	30 W (15 W x 2) RMS (at DC)
Power Consumption:	90 W (at AC)
Speaker:	Woofer 20 cm x 2 PM Dynamic Speaker, 4Ω
	Tweeter 6.5 cm x 2 PM Dynamic Speaker, 4Ω
Input Terminal:	
Stereo Mic (R/L);	0.5 mV (−66 dB)
Monaural Mic;	3.0 mV (−50 dB), 600Ω
Guitar;	10 mV (−40 dB), 150 kΩ
AUX;	25 mV (−32 dB), 10 kΩ
LINE (R/L);	250 mV (−12 dB), 50 kΩ
Phono (R/L);	2.0 mV (−54 dB), 50 kΩ
Output Terminal:	
Speaker (R/L);	4 ~ 8Ω
LINE (R/L);	390 mV, 0.5 kΩ
Headphones;	8Ω
Power Source:	AC 100 ~ 110/115 ~ 127/200 ~ 220/230 ~ 250V, 50/60Hz
	DC 15 V (Battery UM-1 x 10)
	Car Battery 13.2 V
	(Car Battery Cord)
Dimensions:	
Unit (with Accessory Box);	319 (Wide) x 443 (High) x 242 (Deep) mm ($12^{9}/_{16}$" x $17^{15}/_{32}$" x $9^{17}/_{32}$")
Speaker Box (2-Box);	319 (Wide) x 443 (High) x 290 (Deep) mm ($12^{9}/_{16}$" x $17^{15}/_{32}$" x $11^{13}/_{32}$")
Weights:	
Unit (with Accessory Box);	12.5 kg (25 lb $2^{1}/_{2}$ oz)
Speaker Box (2-Box);	9.4 kg (20 lb 11.6 oz)

* Specifications are subject to change without notice.

Panasonic®

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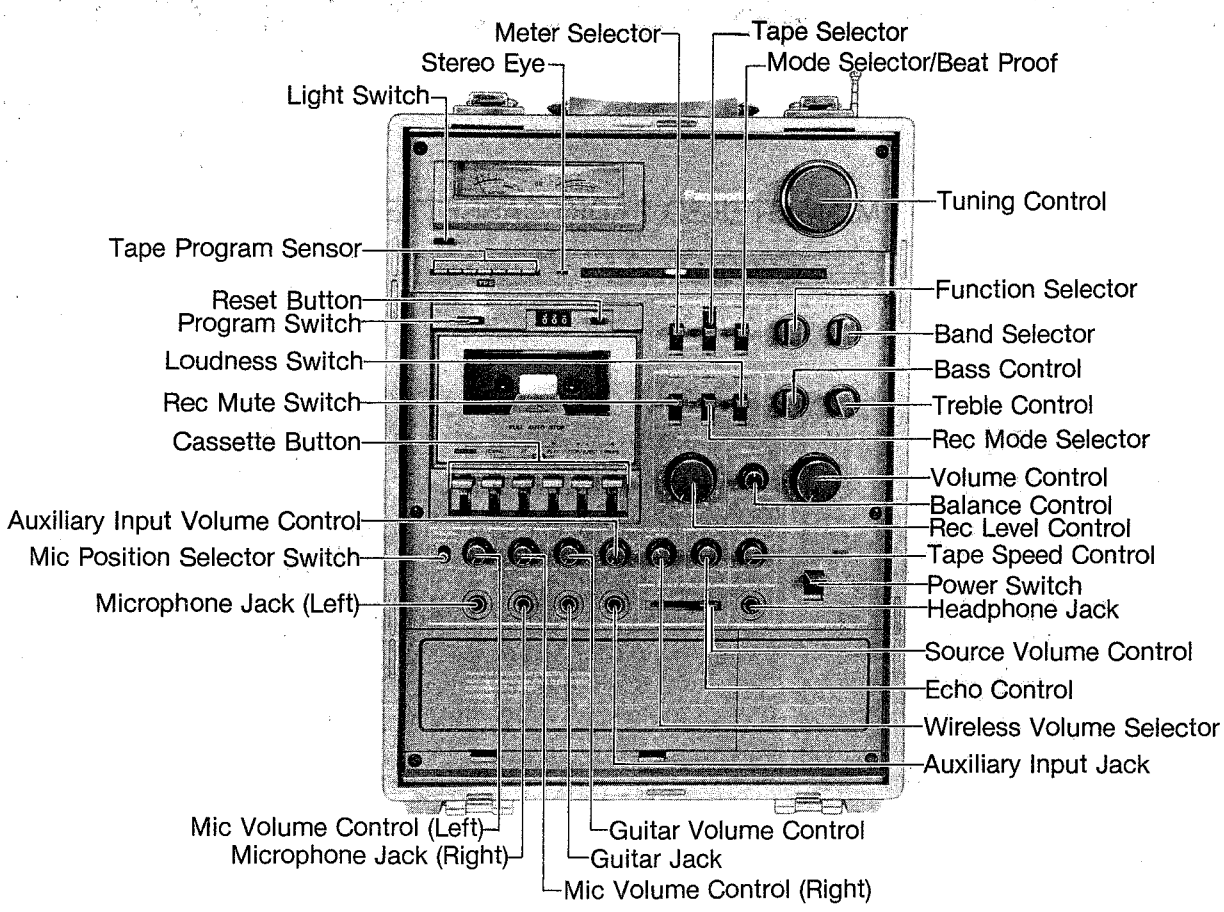
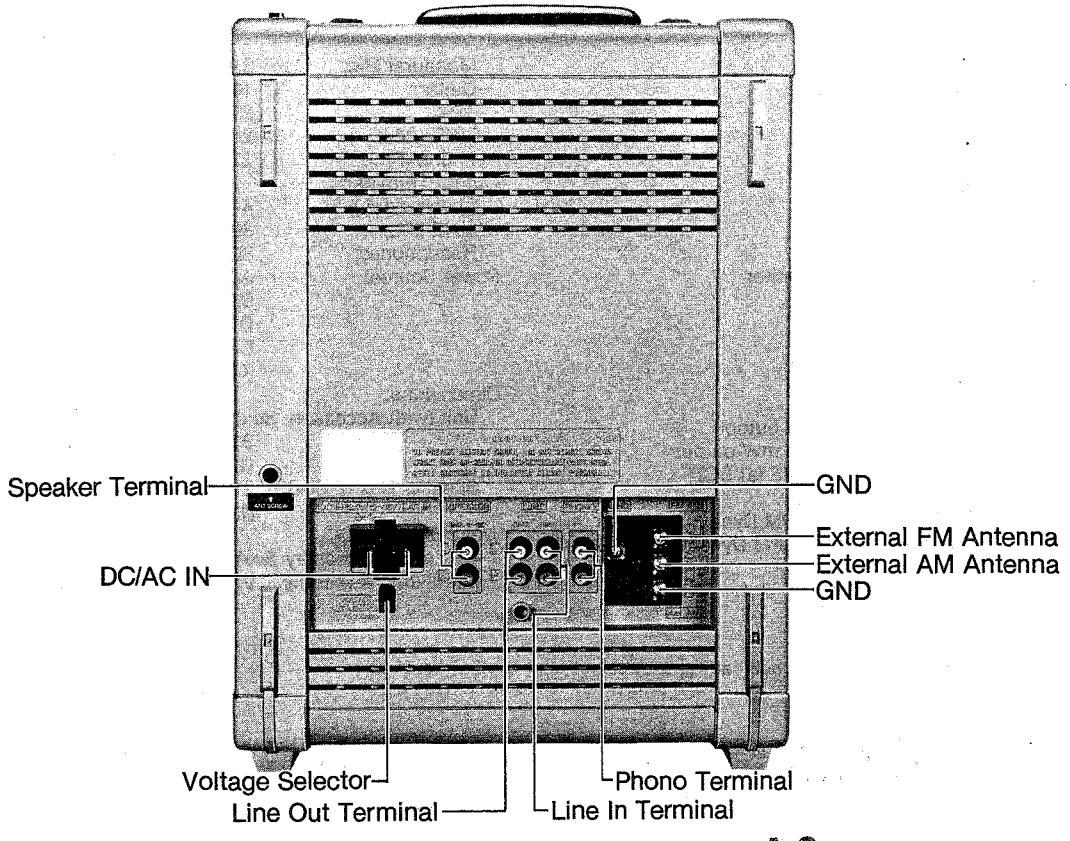
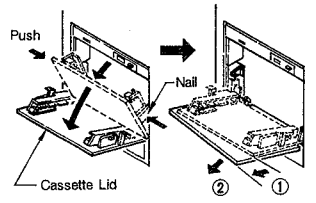
LOCATION OF CONTROLS



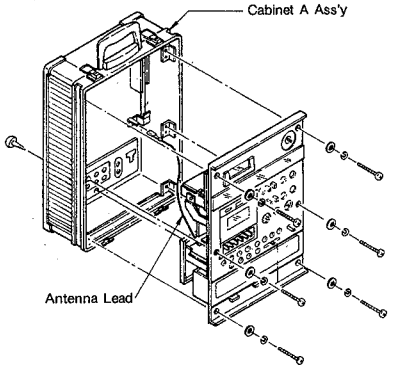


DISASSEMBLY INSTRUCTIONS

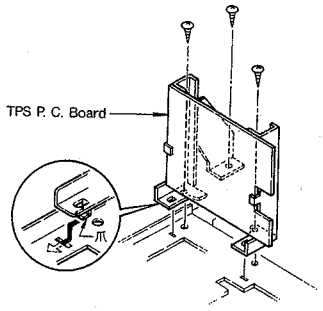
❶ Remove 23 Knobs
❷ Remove Cassette Lid



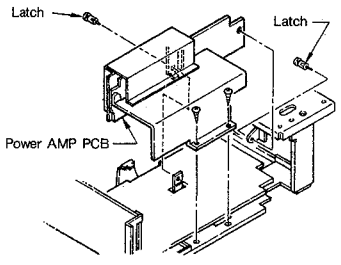
❸ Remove Front Panel



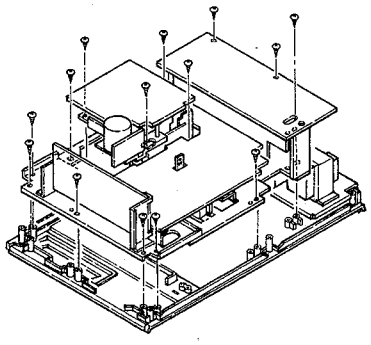
❹ Remove TPS P. C. Board



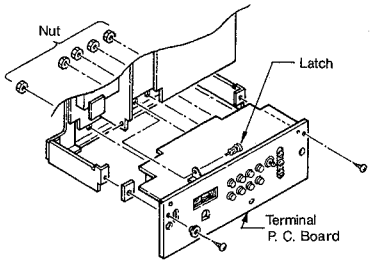
❺ Remove Power AMP P. C. Board



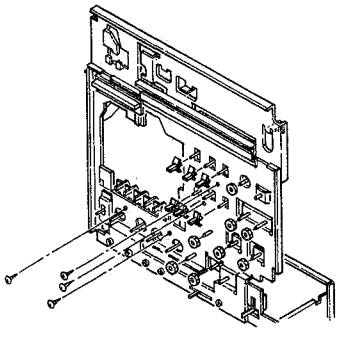
❻ Remove Chassis



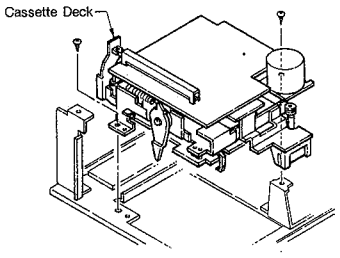
❼ Remove Terminal P. C. Board



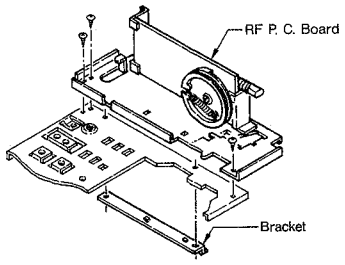
❽ Remove 4 Screws & 8 Nuts



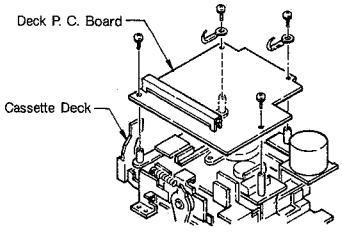
❾ Remove Cassette Deck



❿ Remove RF P. C. Board



⓫ Remove Cassette Deck P. C. Board



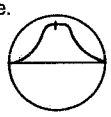
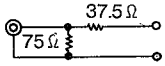
■ To Replace Parts on P.C. Board. . . . Refer to (1) ~ (11)
■ To Remove Cassette Lid. . . . . Refer to (1)
■ To Remove Cassette Tape Deck. . . . Pull Cassette Button and Refer to (2), (3), (9)

NOTE: When assembling or disassembling, be carefull not to damage the painted part of any panels.

ALIGNMENT INSTRUCTIONS

■ Radio

Notes
1. Volume Control ..... Maximum (AM-IF and RF, FM-RF), Minimum (FM-IF)
2. Treble Control ..... Center
3. Bass Control ..... Center
4. Balance Control ..... Center
5. Function Selector ..... AM, FM MONO, FM AUTO
6. Power Switch ..... ON
7. Output of signal generator should be no higher then necessary to obtain output reading.
8. Make certain that speaker system is connected to the receiver when aligning. (or use 8Ω dummy load resistors).

STEP	SIGNAL GENERATOR OR SWEEP GENERATOR		RADIO DIAL SETT SETTING	INDICATOR (VTVM or SCOPE)	ADJUST	REMARKS
	CONNECTION	FREQUENCY				
AM-IF AND RF ALIGNMENT						
1	Fashion loop of several turns of wire and radiate signal into loop of receiver	450 kHz 30% Mod with 400 Hz	Point of non-interference	Output meter across speaker jack (L) (Imp 8Ω)	T201 (AM 1st IFT) T202 (AM 2nd IFT)	Adjust for maximum output
2		550 kHz 30% Mod with 400 Hz	550 kHz		L201 (AM ANT Coil) L202 (AM OSC Coil)	Adjust for maximum output by sliding coil (L201) along ferrite core.
2		1500 kHz 30% Mod with 400 Hz	1500 kHz		CT201 (AM ANT Trimmer) CT202 (AM OSC Trimmer)	Adjust for maximum output Repeat steps (2) and (3)
Note: Cement antenna coil (L201) with wax after completing alignment.						
FM-IF ALIGNMENT						
1	High side through 1pF to body of IC101.	10.7 MHz (400 kHz SWP)	Point of non-interference	Connect vert. amp input of scope between point TP201 and TPE.	T101 (FM 1st IFT) T203 (FM 2nd IFT) (Refer to Note)	Adjsut T101 for maximum amplitude and symmetricl curve. 
2					T204 (FM Disc. IFT)	Adjust for maximum amplitude and proper linearity between about 100 kHz markers.
Note: Before aligning step 1, turn the cores of T204 fully counterclockwise.						
FM-RF ALIGNMENT						
1	Connect to EXT FM antenna terminal through Dummy antenna Common to chassis 	90 MHz 30% Mod with 400 Hz	90 MHz	Output meter across speaker jack (L). (Imp 8Ω)	L101 (FM ANT Coil) L102 (FM OSC Coil)	Adjust for maximum output
2		106 MHz 30% Mod with 400 Hz	106 MHz		CT101 (FM ANT Trimmer) CT102 (FM OSC Trimmer)	Adjust for maximum output Repeat steps (1) and (2).

ALIGNMENT INSTRUCTIONS

■ FM Stereo Alignment

Control Positions:
Tuner: Volume Control ..... Audible level of speaker sound
Tone Control ..... Center
Function Selector ..... FM AUTO
Balance Control ..... Center

EQUIPMENT CONNECTION	ADJUST	REMARKS
Connect frequency counter to TP301 and earth point.	VR302	Adjust VR302 for 19 kHz ±50 Hz on frequency counter reading.

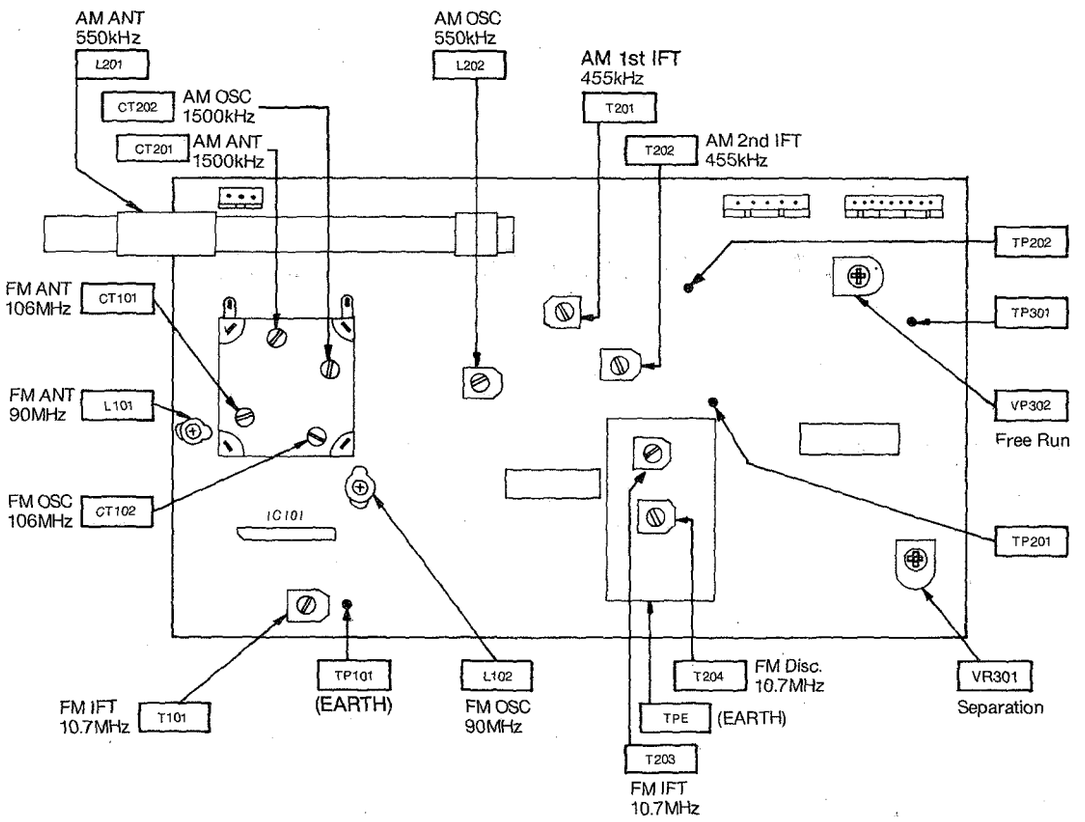
SEPARATION ALIGNMENT

Notes:
1. Stereo Modalator: Connect Stereo Modulator to EXT. Mod. terminal of signal generator.
2. Signal Generator: Modulation Rate of 19 kHz Pilot signal 10%
Modulation Rate of Right and Left Signal 27%
Output Level ..... 60 dB
3. Tuner (Balahce Conrtol): Adjust balance control so that output level from both channels becomes equal.

REQUIPMENT CONNECTION			ADJUST	REMARKS
SIGNAL GENERATOR	VTVM	OSCILLOSCOPE		
Connect to EXT. FM antenna teminal through dummy antenna.	Connect acros speaker jack	Connect verticel amp. input of scope to terminal of VTVM.	VR301 (Separation Control)	Adjust VR301 for minimum indication of VTVM from the left side output when the right side of stereo signal is modulated. Adjust VR301 in the same way for the right side. Adjust for best balance between "L to R" and "R to L" separation.

Note: When allgning separation, disconnect frequency conuter.

ALIGNMENT POINTS (RADIO)

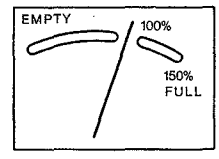


ALIGNMENT INSTRUCTIONS

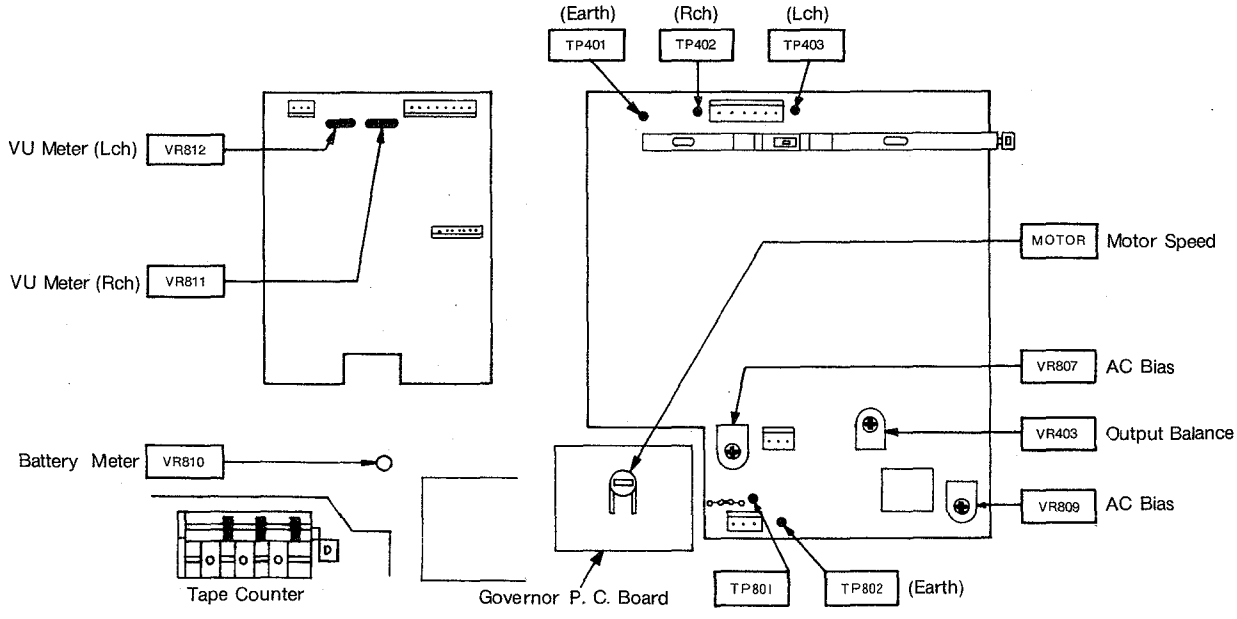
■ Tape Deck

STEP	ALIGNMENT ITEM	VTVM CONNECTION		ADJUST	REMARKS
		Positive	Negative		
1	MOTOR SPEED	Connect across speaker jack.		MOTOR VR	Play QZZCWAT and adjust for 3000 Hz ±15 Hz indication on frequency counter.
2	BIAS CURRENT BIAS CURRENT	TP403 (Lch) TP402 (Rch)	TP401	VR807 & VR809	Set volume control to minumum and Tape selector to normal position. 1. Adjust VR807 for balanced value. 2. Adjust VR807 for 3.3mV (330μA) reading on VTVM. Note: With above condition, ERASE CURRENT should be within 63~85mV (63mA~85mA) at TP801.
3	R/P HEAD AZIMUTH	SPEAKER TERMINAL	SPEAKER TERMINAL	R/P HEAD SCREW	Adjust screw for max indication on VTVM.

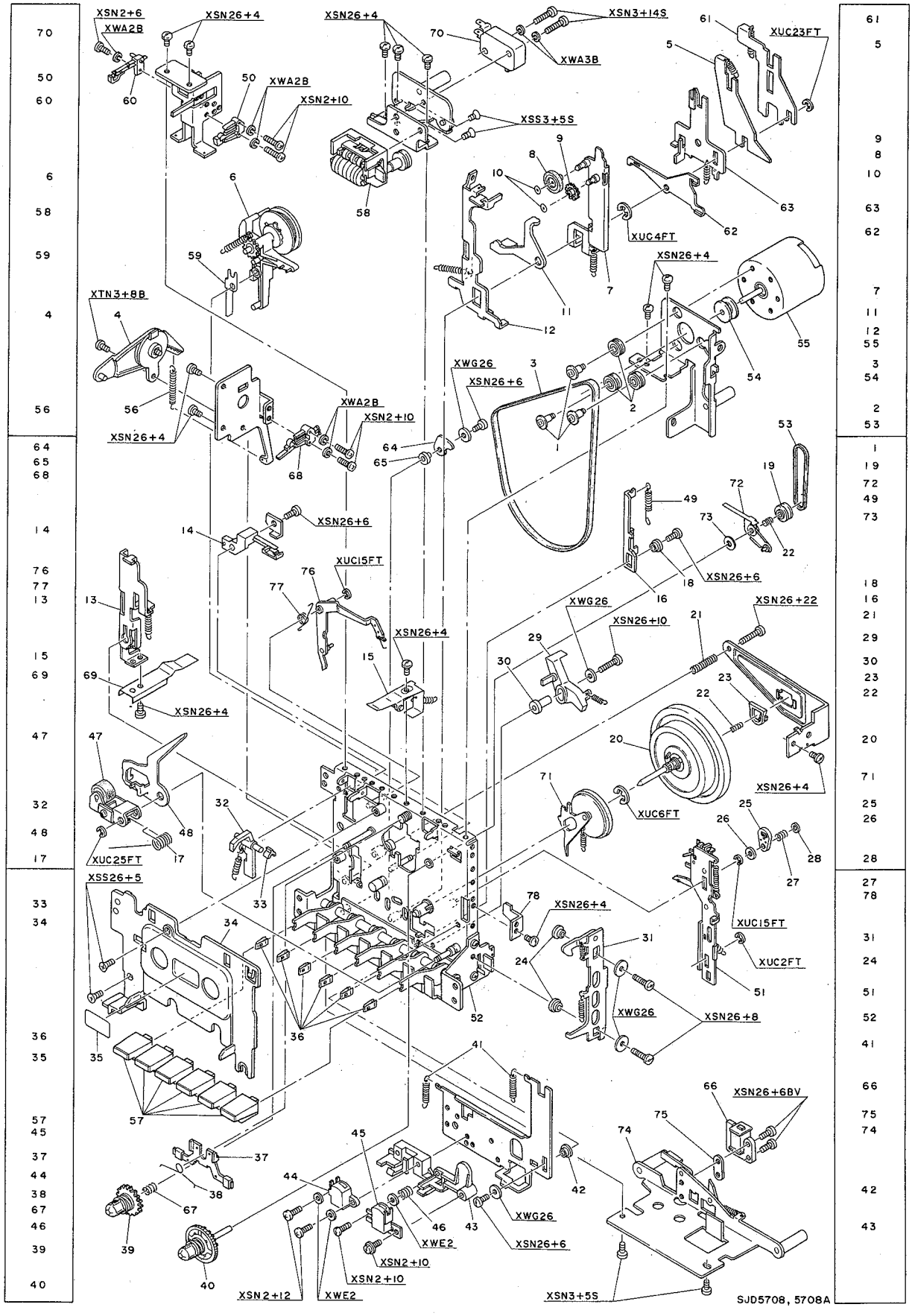
■ Meter

STEP	ALIGNMENT ITEM	INPUT SIGNAL	ADJUST	REMARKS
1	VU METER ADJUSTMENT	250 mV, Line Input	VR811(Rch) VR812(Lch)	Adjust VR811 and VR812 for 0 VU on VU meter.
2	OUTPUT BALANCE	———	VR403	Play QZZCSX and adjust VR403 for best balance.
3	BATTERY METER	———	VR810	Adjust VR810 for 150% deflection at AC 120 V power supply. 

ALIGNMENT POINTS (TAPE DECK)



MECHANICAL PARTS



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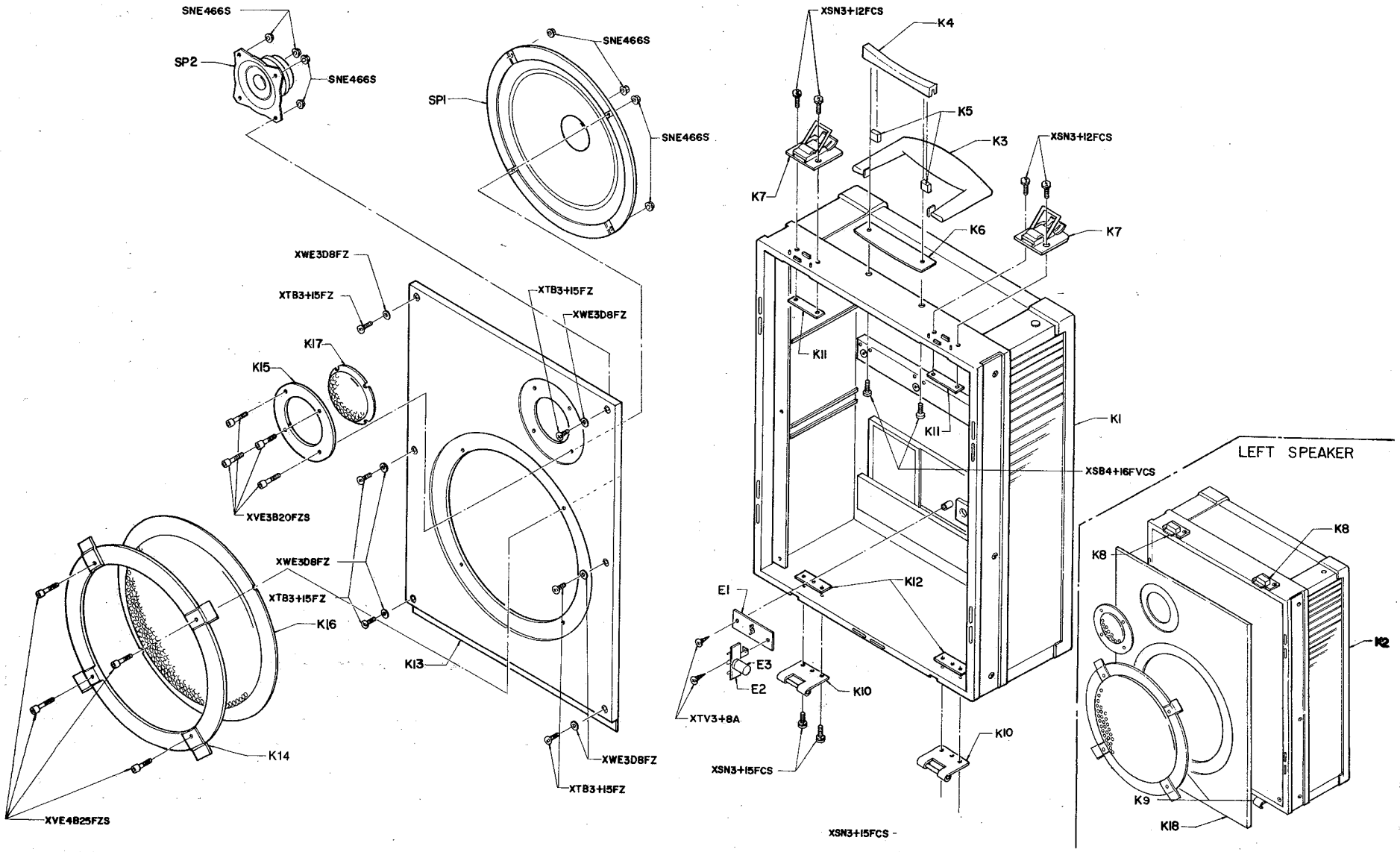
english.	I N D E X - I.	deutsch.
M O D E L R X - 6 4 0 0.		M O D E L L R X - 6 4 0 0.
Specifications.	A 1	Technische Daten.
Location of controls.	A 2	Bedienungsanleitung.
Disassembly instructions.	A 3	Demontageanleitungen.
Alignment instructions. Alignment points.	A 4- A 6	Abgleichanweisungen. Abgleichstellen.
Exploded views.		Explosionszeichnungen.
Mechanical parts.	A 7	Mechanische Teile.
Cabinet parts.	A 9- A12	Gehäuseteile.
Electrical parts.	A13- A14	Elektroteile.
I.C. and Block diagrams.	B 1- B 2	I.C. und Blockschaltbilder.
Dial cord stringing guide.	B 1	Skalenbandeinstellung.
Circuit board (Radio section). Schematic diagram.	E 1- E 4 G 1- G 4	Platine (Radiosektor). Schaltplan.
Circuit board/Wiring connection diagram.(Audio section)	E 5- E 8 G 5- G 8	Platine-Verbindungsplan. (Tonsektor)
Schematic diagram.(Audio sec.)	E 9- E12 G 9- G12	Schaltplan. (Tonsektor)
Replacement parts list.		Ersatzteile-Liste.
Mechanical parts. Transistors, Diodes.	B 3- B 5	Mechanische Teile. Transistoren, Dioden.
I.C.s, Coils, Transformers, Variable Resistors, Variable Capacitors, Component Combination, Speaker, Switches, Lamps, Meter.	B 5- B 6	Integrierte Schaltungen, Spulen Trafos, Potentiometer, Drehkondensatoren, Kombinierte Teile, Lautsprecher, Schalter, Lampen, Anzeigegerät.
Resistors.	B 6- B10	Widerstände.
Capacitors.	B10- B14	Kondensatoren.
Electrical parts. Cabinet parts.	B14	Elektroteile. Gehäuseteile.
Accessories. Packing materials. Printed materials.	C 1- C 2	Zubehör. Verpackungsmaterial. Technische Unterlagen.
S/M. Order No. RD-8004-5085 C		S/M. Best. Nr. RD-8004-5085 C

CABINET PARTS



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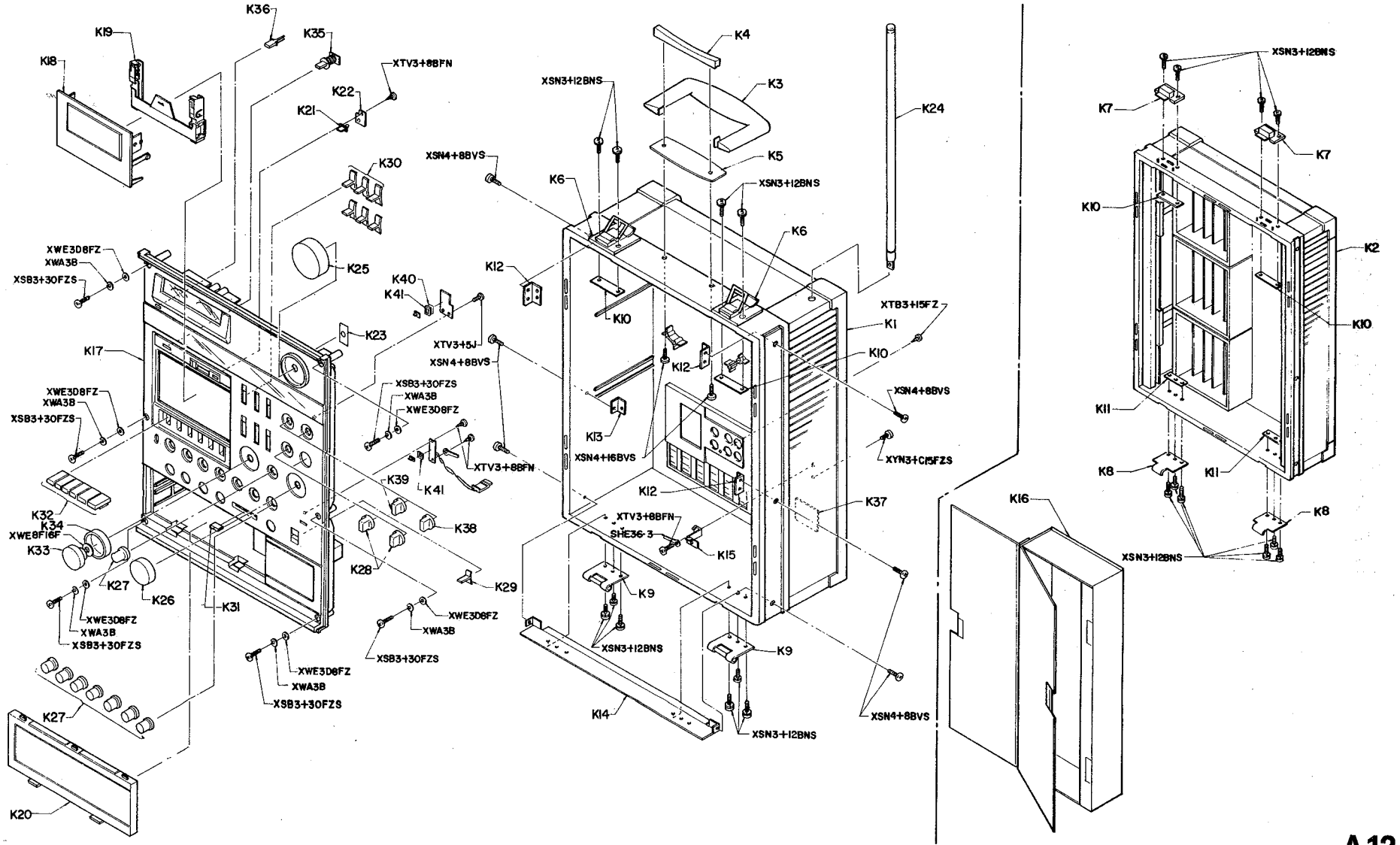
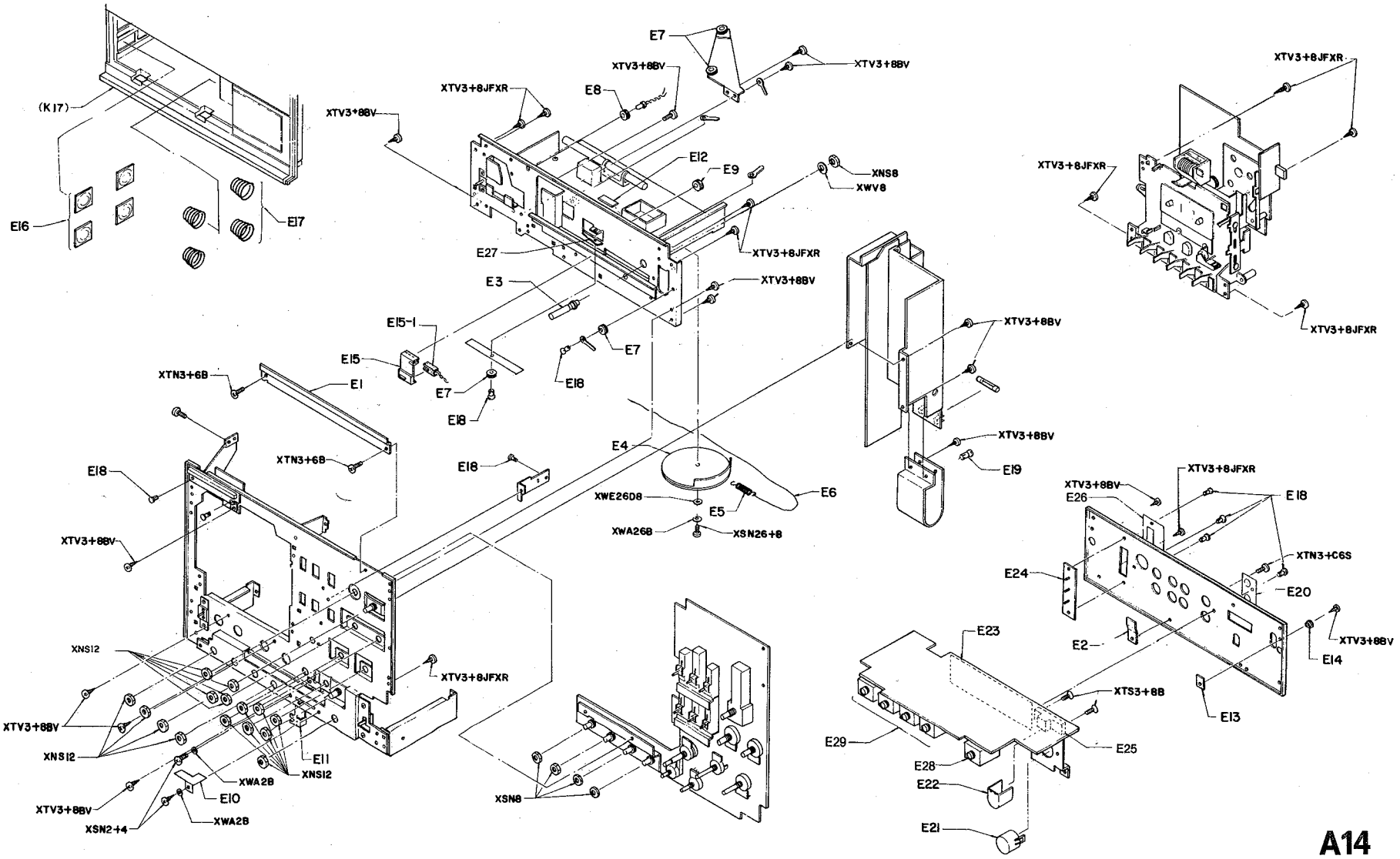
RX-6400

CABINET PARTS



ELECTRICLAL PARTS



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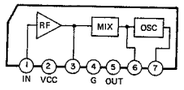
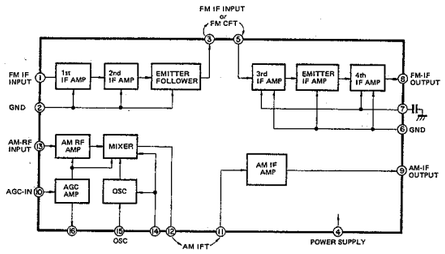
RX-6400

IC BLOCK DIAGRAMS

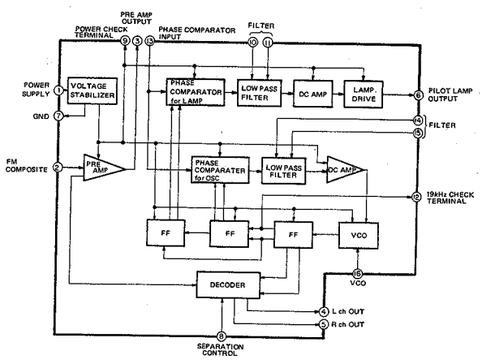
IC101 AN7213



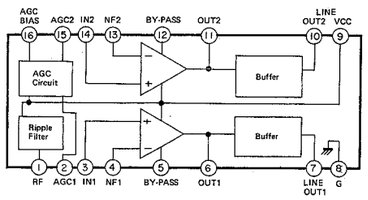
IC201 AN217P



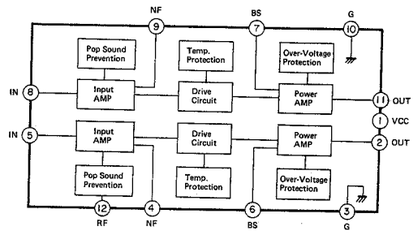
IC301 LA3350S



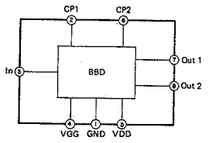
IC401 M51301P



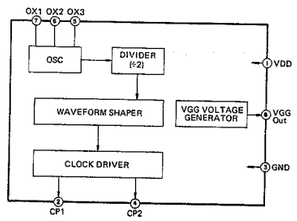
IC701 AN7156N



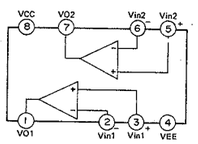
IC801 MN3007



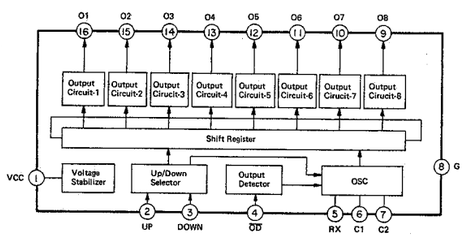
IC802 MN3101



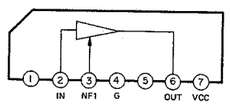
IC803, 804 AN6552



IC806 M54832P

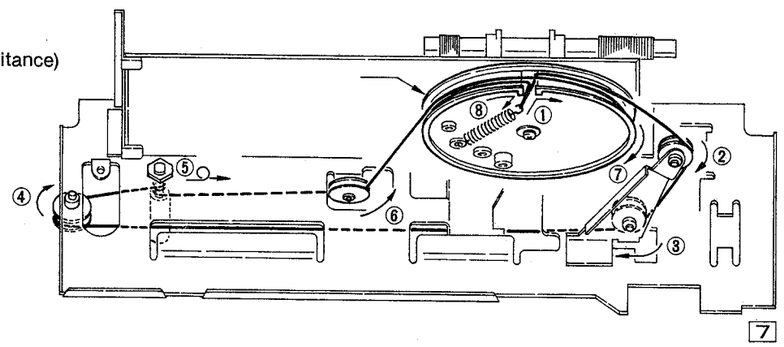


IC805 VPC566H



DIAL CORD STRINGING GUIDE

NOTE:
Tuning Capacitor .....
open position (minimum capacitance)
Dial Cord Length .....
125 cm (49$^{7}/_{32}$")



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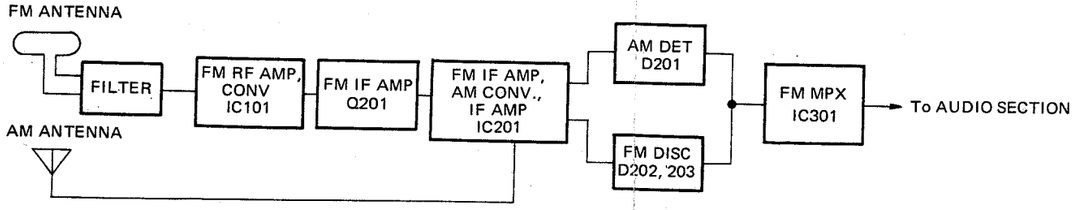
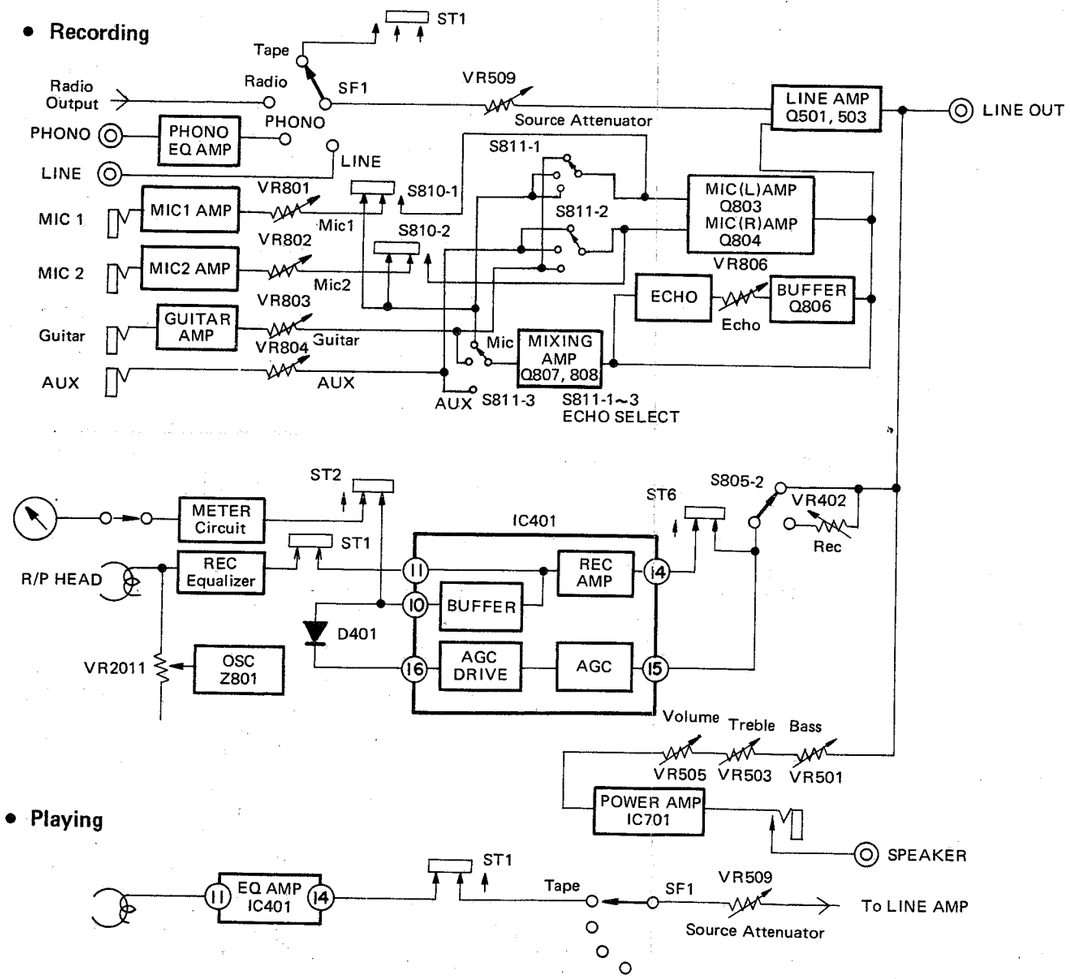
BLOCK DIAGRAM

■ RADIO TUNER SECTION



■ AUDIO SECTION

• Recording



• Playing

■ REPLACEMENT PARTS LIST .....Model RX-6400

(RD8004-5085C)

NOTES: 1. ⚠ indicates that only parts specified by the manufacturer be used for safety.
2. The S mark indicates service standard parts and may differ from production parts.

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
		MECHANICAL PARTS (SJD5708AS)		
M1	SMQ1908	Screw, Motor	3	
M2	SMQ1834	Rubber Cushion, Motor	3	
M3	SMQ2836	Belt, Main	1	
M4	SXE152-1	Eject Arm Ass'y	1	
M5	SMQ2426-1	Operation Plate, Muting w/Spring	1	
M6	SMQ1930-1	RF Clutch Ass'y w/Spring	1	
M7	SMQ1922	FF Idler Arm Ass'y w/Spring	1	
M8	SMQ2840	Idler Wheel w/Washer	1	
M9	SNQ2842	GearFF w/Washer 1		
M10	SMQ1952	Washer	1	
M11	SMQ1928	Arm, Rewind	1	
M12	SMQ2428	Main Plate w/Spring	1	
M13	SMQ2788	Rec Slide Lever w/Spring	1	
M14	SMQ1378	Leaf Switch, Motor ON-OFF	1	
M15	SMQ2432	Tape Holder Ass'y w/Spring	1	
M16	SMQ2434	Slide Lever, Play	1	
M17	SMQ2804	Spring, Pressure Roller	1	
M18	SMQ1426	Collar, Play Slide Lever	1	
M19	SMQ2790-1	Pulley, Drive	1	
M20	SMQ2794	Flywheel	1	
M21	SMQ1948	Spring, Thrust	1	
M22	SMQ1784	Spring, Flywheel	1	
M23	SMQ2796	Pad, Flywheel	1	
M24	SMQ1426	Collar, Eject Slide Lever	2	
M25	SMQ2444	Lever, Pause	1	
M26	SMQ2834	Collar, Pause Lever	1	
M27	SMQ2448	Spring, Pause Lever	1	
M28	SMQ2450	Washer, Nylon	1	
M29	SMQ2452	Lever, Auto-Stop Drive w/Spring	1	
M30	SMQ2454	Collar, Auto-Stop Lever	1	
M31	SMQ2462	Eject Slide Lever Ass'y w/Spring	1	
M32	SMQ2464	Rec Safety Lever w/Spring	1	
M33	SMQ1706	Stopper, Rec Safety Lever	1	
M34	SGE932-1	Blind Plate, Cassette	1	
M35	SDH200	Reflector Pater	1	
M36	SMQ2468	Spring, Button	6	
M37	SMQ2470	Brake Arm Ass'y	1	
M38	SMQ2472	Spring, Brake Arm	1	
M39	SMQ2474	Reel Ass'y, Spply	1	
M40	SMQ2476	Reel Ass'y, Takeup	1	
M41	SMQ2478	Spring, Head Panel	2	
M42	SMQ1648	Collar, Head Panel	1	
M43	SMQ1986	Head Base	1	
M44	SJH56	Erase Head	1	
M45	SJH30	Rec/Play Head	1	
M46	SMQ678	Spring, Rec/Play Head	1	
M47	SMQ2802	Pressure Roller Ass'y	1	
M48	SMQ2494	Lever, Arm	1	
M49	SMQ2488	Spring, RC	1	
M50	SMQ2070	Leaf Switch, Muting	1	
M51	SMQ2798-1	Pause Slide Lever Ass'y w/Spring	1	
M52	SMQ2800	Frame Ass'y, Button	1	
M53	SMQ2792	Belt, Counter	1	
M54	SMQ1662	Pulley, Motor	1	
M55	MHI6400	Motor Ass'y	1	
M56	SUS306	Spring, Eject Arm	1	
M57	SBC426	Button, Cassette	6	
M58	SMQ2750	Counter	1	
M59	SMQ2724	Spring Plate, RF Clutch	1	
M60	SMQ1698	FF, Rew Switch	1	
M61	SMQ2498-1	Operation Plate, FF; Rew w/Spring	1	
M62	SMQ2500	Lever, RC	1	
M63	SMQ2806	RC Slide Lever w/Spring	1	
M64	SMQ2504	Stopper	1	
M65	SMQ2506	Collar, Stopper	1	
M66	SMQ2820	Solenoid Ass'y	1	
M67	SMQ2512	Spring, Supply Reel	1	
M68	SMQ1664	Switch, Rec	1	
M69	SMQ2808	Spring Plate, Rec	1	
M70	AH765039	Switch, Micro	1	
M71	SMQ2812	Lead Pulley Arm Ass'y w/Spring	1	
M72	SMQ2814-1	Full Auto-Stop Plate Ass'y	1	
M73	SMQ3120	Clutch Plate	1	
M74	SMQ2818	Solenoid Bracket Ass'y	1	
M75	SMQ2822	Spacer, Solenoid	1	
M76	SMQ2824-1	Cut Lever, RC	1	
M77	SMQ2826	Spring, RC Cut Lever	1	
M78	SMQ2838	Stopper, Full Auto-Stop Plate	1	
M79	SMQ3216	Spring, Auto-Stop Plate	1	
		TRANSISTORS AND DIODES		
Q201, 202	2SC1359	Transistor (Si)	2	S
Q301, 401, 402, 403, 404, 405, 406, 501, 502, 503, 504				
	2SC945L	Transistor (Si)	11	S
Q601, 602	2SC1222	Transistor (Si)	2	S
Q603, 604	2SC945L	Transistor (Si)	2	S
Q801, 802, 803, 804, 805				
	2SC1222	Transistor (Si)	5	S
Q806	2SC945L	Transistor (Si)	1	S
Q807	2SC1222	Transistor (Si)	1	S
Q808	2SC945L	Transistor (Si)	1	S
Q809, 810	2SA564	Transistor (Ge)	2	S
Q812	2SC945L	Transistor (Si)	1	S
Q813	2SA564	Transistor (Ge)	1	S
Q814, 815	2SC945L	Transistor (Si)	2	S
Q817	2SC564	Transistor (Si)	1	S
Q818	2SC945L	Transistor (Si)	1	S
Q819	2SD471	Transistor (Si)	1	S
Q820	2SC1846	Transistor (Si)	1	S
Q821, 822	2SC945L	Transistor (Si)	2	S
Q823	2SA564	Transistor (Si)	1	S
Q824, 825	2SC945L	Transistor (Si)	2	S
Q901	2SC1846	Transistor (Si)	1	S
Q902	2SC945L	Transistor (Si)	1	S
D101	MA162A	Diode	1	S

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
D102	MA345	Diode	1	
D201	20A90	Diode	1	S
D202, 203	20A90	Diode	2	S
D204, 205	20A90	Diode	2	S
D206	20A90	Diode	1	S
D207	MA162A	Diode	1	S
D301	MA162A	Diode	1	S
D401, 402	MA162A	Diode	2	S
D403	MA162A	Diode	1	S
D701, 702	SVDRD16EB	Diode	2	S
D801	MA26WO	Diode	1	
D802	RVDMZ204	Diode	1	S
D803, 804	MA162A	Diode	2	S
D805, 806	MA162A	Diode	2	S
D808	SM112	Diode	1	S
D809, 810, 812, 813, 814, 815				
	LN07201P	Diode	1	S
D816	SVDRD8.2EB	Diode	1	S
D817, 818	20A90	Diode	2	S
D819, 820	20A90	Diode	2	S
D821	RVDRD12FB	Diode	1	S
D822, 823	LN220RP	Diode	2	
D824, 825	MA162A	Diode	2	S
D826	MA162A	Diode	1	S
D829	SVDRD8.2EB	Diode	1	
D901	SVDS10VB20	Diode	1	⚠
D902	SVDERD03	Diode	1	⚠
D903	SVDRD8.2EB	Diode	1	S ⚠
INTEGRATED CIRCUITS				
IC101	AN7213	FM RF Amp	1	
IC201	AN217P	FM IF & AM RF, IF Amp	1	S
IC301	LA3350S	FM, MPX	1	
IC401	M51301P	Tape EQ Amp	1	
IC701, 702	AN7156NBTL	Power Amp	2	
IC801	MN3207	BBD	1	
IC802	MN3102	BBD Driver	1	
IC803, 804	AN6552	BBD Amp	2	
IC805	μPC566H	PRE Amp	1	
IC806	M54832P	Channel Selector	1	
COILS AND TRANSFORMERS				
L1, 2	SLQX47G-2Z	Coil, Peaking	2	
L101	SLA4P24-Z	Ant Coil, FM	1	
L102	SLO4P24-Z	OSC Coil, FM		
L201	RLF2D153	Ferrite Ant	1	
L202	SLO2M10-M	OSC, AM	1	
L203	SLQU270-2K	RFC	1	
L401, 402	SLQX272-2K	Coil, Peaking	2	
Z801	SLO9Z32-K	Bias OSC Block	1	
T101	RLI4M101	1st IFT, FM	1	
T201	RLI2M210-M	1st IFT, AM	1	
T202	SLI2M202-M	2nd IFT, AM	1	
T203	RLI4M501	IFT, FM Disc	1	
T204	RLI4M502	IFT, FM Disc	1	
T901	SLT5M132-V	Power Transformer	1	⚠
CF201, 202	SVF107MA53	Ceramic Filter, FM	2	
CF203	SVFSFU450E	Ceramic Filter, AF	1	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
VARIABLE RESISTORS				
VR301	EVTS3MA00B23	Preset, 2kΩ (B)	1	S
VR302	EVTS3MA00B53	Preset, 5kΩ (B)	1	
VR401, 402	EWKNEAF32B14	Variable Resistor, 10kΩ (B)	2	
VR403	EVTS3MA00B24	Preset, 20kΩ (B)	1	S
VR501, 502	EWK5DA064A54	Variable Resistor, 50kΩ (A+	2	
VR503, 504	EWKDA064A54	Variable Resistor, 50kΩ (A)	2	
VR505, 506	EWK6DA031A54	Variable Resistor, 50kΩ (A)	2	
VR507	EVH7XAF30G15	Variable Resistor, 100kΩ (G)	1	
VR508, 509	EVBV0AD15B54	Variable Resistor, 50kΩ (B)	2	
VR801, 802	EVH7XAF30B14	Variable Resistor, 10kΩ (B)	2	
VR803, 804	EVH7XAF30B14	Variable Resistor, 10kΩ (B)	2	
VR806	EVH7XAF30B14	Variable Resistor, 10kΩ (B)	1	
VR807	EVTS3MA00B24	Variable Resistor, 20kΩ (B)	1	S
VR809	EVTS3MA00B24	Variable Resistor, 20kΩ (B)	1	S
VR810	EVTS3AA00B54	Variable Resistor, 50kΩ (B)	1	S
VR811, 812	EVTT3AA00B53	Variable Resistor, 5Ω (B)	2	
VR813	EVH2XAF2014U	Variable Resistor, 10kΩ (ZU)	1	
VARIABLE CAPACITOR				
CV101, 102, 201, 202 (CT101, 102, 201, 202)				
	SCVCB41EM	Tuning Capacitor w/Trimmer	1	
COMPONENT COMBINATIONS				
Z101	RXABPF10801H	Component Combination (L, C)	1	
Z201	EXA5DL04C	Component Combination (C, R)	1	
Z202	EXAF203Z471	Component Combination (C, C)	1	
Z901, 902	EXRFS203Z	Component Combination (C, C)	1	
SPEAKERS				
SP1	EAS20PL156S	Speaker, 20cm (7-7/8"), Woofer	2	
SP2	EAS65PH05SR	Speaker, 6.5cm (2-9/16"), Tweeter	2	
SWITCHES				
S1	ESL21134T	Switch, Power	1	⚠
S8	SSR150	Switch, Voltage Selector	1	⚠
S201	SSR142	Switch, Band Selector	1	
S801	SSL60	Switch, Mode Selector	1	
S802	SSL56	Switch, Tape Selector	1	
S803, 804	SSL62	Switch, Meter Selector/Loudness	1	
S805	SSL60	Switch, Rec Mode Selector	1	
S806	SSL58	Switch, Rec Mute	1	
S808	SSH104	Switch, Dial Lamp	1	
S809	SSP46	Switch, TPS Program	1	
S810	SSS100	Switch, Stereo/Mono Selector	1	
S811	SSR146	Switch, Echo Selector	1	
SF1~4	SSR138	Switch, Function Selector	1	
ST1~12	ESD81564	Switch, Rec/Play Selector	1	
LAMP				
PL901	XAMR61X400	12.6V 50mA	1	
METER				
M1	EMT1919	Meter	1	
RESISTORS (Value is in OHMS)				
R1	ERD50FJ335	3.3 1/2W Carbon	1	S ⚠

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Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
R101	ERD25FJ101	100 1/4W Carbon	1	S
R102	ERD25FJ122	1.2k 1/4W Carbon	1	S
R103	ERD25FJ470	47 1/4W Carbon	1	S
R104	ERD25FJ101	100 1/4W Carbon	1	S
R105	ERD25TJ104	100k 1/4W Carbon	1	S
R106	ERD50FJ103	10k 1/2W Carbon	1	S
R108	ERD50FJ102	1k 1/2W Carbon	1	S
R201	ERD25FJ101	100 1/4W Carbon	1	S
R202	ERD25TJ474	470k 1/4W Carbon	1	S
R203	ERD25FJ471	470 1/4W Carbon	1	S
R204	ERD25FJ331	330 1/4W Carbon	1	S
R205	ERD25FJ102	1k 1/4W Carbon	1	S
R206	ERD25FJ221	220 1/4W Carbon	1	S
R207	ERD25FJ181	180 1/4W Carbon	1	S
R208	ERD25FJ221	220 1/4W Carbon	1	S
R209	ERD25FJ152	1.5k 1/4W Carbon	1	S
R210	ERD25FJ221	220 1/4W Carbon	1	S
R211	ERD25FJ333	33k 1/4W Carbon	1	S
R212	ERD25FJ684	680k 1/4W Carbon	1	S
R213, 214	ERD25FJ102	1k 1/4W Carbon	2	S
R215	ERD25TJ474	470k 1/4W Carbon	1	S
R216	ERD25FJ222	2.2k 1/4W Carbon	1	S
R217	ERD25FJ681	680 1/4W Carbon	1	S
R219	ERD25FJ103	10k 1/4W Carbon	1	S
R220	ERD25TJ224	220k 1/4W Carbon	1	S
R221	ERD25FJ101	100 1/4W Carbon	1	S
R222	ERD25FJ472	4.7k 1/4W Carbon	1	S
R223	ERD25FJ103	10k 1/4W Carbon	1	S
R224	ERD25TJ123	12k 1/4W Carbon	1	S
R225	ERD25FJ102	1k 1/2W Carbon	1	S
R226	ERD25TJ683	68k 1/4W Carbon	1	S
R227	ERD25FJ221	220 1/4W Carbon	1	S
R301	ERD25FJ150	15 1/4W Carbon	1	S
R302, 303	ERD25FJ332	3.3k 1/4W Carbon	2	S
R304	ERD25FJ682	6.8k 1/4W Carbon	1	S
R305	ERD25FJ332	3.3k 1/4W Carbon	1	S
R306	ERD25FJ101	1k 1/4W Carbon	1	S
R307	ERD25FJ103	10k 1/4W Carbon	1	S
R308, 309	ERD25TJ473	47k 1/4W Carbon	2	S
R310	ERD25FJ103	10k 1/4W Carbon	1	S
R311	ERD25TJ393	39k 1/4W Carbon	1	S
R401, 402	ERD25FJ100	10 1/4W Carbon	2	S
R403, 404	ERD25FJ472	4.7k 1/4W Carbon	2	S
R405, 406	ERD25FJ472	4.7k 1/4W Carbon	2	S
R407, 408	ERD25TJ273	27k 1/4W Carbon	2	S
R409, 410	ERD25TJ104	100k 1/4W Carbon	2	S
R411, 412	ERD25FJ332	3.3k 1/4W Carbon	2	S
R413, 414	ERD25FJ330	33 1/4W Carbon	2	S
R415, 416	ERD25FJ562	5.6k 1/4W Carbon	2	S
R417, 418	ERD25TJ104	100k 1/4W Carbon	2	S
R419, 420	ERD25FJ332	3.3k 1/4W Carbon	2	S
R421, 422	ERD25FJ472	4.7k 1/4W Carbon	2	S
R423, 424	ERD25TJ683	68k 1/4W Carbon	2	S
R425, 426	ERD25FJ822	8.2k 1/4W Carbon	2	S
R427, 428	ERD25FJ103	10k 1/4W Carbon	2	S
R431, 432	ERD25FJ682	6.8k 1/4W Carbon	2	S
R433, 434	ERD25TJ333	33k 1/4W Carbon	2	S
R435, 436	ERD25TJ153	15k 1/4W Carbon	2	S

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
R437, 438	ERD25TJ223	22k 1/4W Carbon	2	S
R439, 440	ERD25TJ154	150k 1/4W Carbon	2	S
R442	ERD25TJ123	12k 1/4W Carbon	1	S
R443	ERD25FJ103	10k 1/4W Carbon	1	S
R444	ERD25TJ154	150k 1/4W Carbon	1	S
R445, 446	ERD25TJ223	22k 1/4W Carbon	2	S
R449, 450	ERD25FJ682	6.8k 1/4W Carbon	2	S
R451, 452	ERD25FJ562	5.6k 1/4W Carbon	2	S
R453, 454	ERD25FJ222	2.2k 1/4W Carbon	2	S
R455, 456	ERD25TJ333	33k 1/4W Carbon	2	S
R457, 458	ERD25TJ224	220k 1/4W Carbon	2	S
R459, 460	ERD25FJ681	680 1/4W Carbon	2	S
R461, 462	ERD25FJ392	3.9k 1/4W Carbon	2	S
R463, 464	ERD25FJ472	4.7k 1/4W Carbon	2	S
R465, 466	ERD25FJ272	2.7k 1/4W Carbon	2	S
R467, 468	ERD25FJ560	56 1/4W Carbon	2	S
R469	ERD25FJ101	100 1/4W Carbon	1	S
R470	ERD25FJ1R0	1 1/4W Carbon	1	S
R471	ERD25FJ101	100 1/4W Carbon	1	S
R472	ERD25FJ103	10k 1/4W Carbon	1	S
R501, 502	ERD25TJ563	56k 1/4W Carbon	2	S
R503, 504	ERD25TJ223	22k 1/4W Carbon	2	S
R505, 506	ERD25FJ332	3.3k 1/4W Carbon	2	S
R507, 508	ERD25TJ563	56k 1/4W Carbon	2	S
R509, 510	ERD25TJ563	56k 1/4W Carbon	2	S
R511, 512	ERD25TJ473	47k 1/4W Carbon	2	S
R513, 514	ERD25TJ123	12k 1/4W Carbon	2	S
R515, 516	ERD25TJ273	27k 1/4W Carbon	2	S
R517, 518	ERD25TJ105	1 1/4W Carbon	2	S
R519, 520	ERD25FJ392	3.9k 1/4W Carbon	2	S
R521, 522	ERD25FJ820	82 1/4W Carbon	2	S
R523, 524	ERD25FJ331	330 1/4W Carbon	2	S
R525, 526	ERD25FJ151	1.5k 1/4W Carbon	2	S
R527, 528	ERD25TJ153	15k 1/4W Carbon	2	S
R529, 530	ERD25FJ472	4.7k 1/4W Carbon	2	S
R531, 532	ERD25FJ103	10k 1/4W Carbon	2	S
R533, 534	ERD25FJ103	10k 1/4W Carbon	2	S
R535	ERD25FJ101	100 1/4W Carbon	1	S
R537, 538	ERD25FJ152	1.5k 1/4W Carbon	1	S
R539, 540	ERD25TJ823	82k 1/4W Carbon	1	S
R541, 542	ERD25TJ684	680k 1/4W Carbon	2	S
R543	ERD25FJ102	1k 1/4W Carbon	1	S
R601, 602	ERD25FJ102	1k 1/4W Carbon	2	S
R603, 604	ERD25TJ104	100k 1/4W Carbon	2	S
R605, 606	ERD25TJ154	150k 1/4W Carbon	2	S
R607, 608	ERD25FJ122	1.2k 1/4W Carbon	2	S
R609, 610	ERD25TJ104	100k 1/4W Carbon	2	S
R611	ERD25TJ333	33k 1/W Carbon	1	S
R613, 614	ERD25FJ682	6.8k 1/4W Carbon	2	S
R615, 616	ERD25FJ152	1.5k 1/4W Carbon	2	S
R617, 618	ERD25TJ124	120k 1/4W Carbon	2	S
R619, 620	ERD25TJ153	15k 1/4W Carbon	2	S
R621, 622	ERD25TJ683	68k 1/4W Carbon	2	S
R701, 702	ERD25FJ222	2.2k 1/4W Carbon	2	S
R703, 704	ERD25FJ472	4.7k 1/4W Carbon	2	S
R705, 706	ERD25FJ470	47 1/4W Carbon	2	S
R707, 708	ERD25FJ470	47 1/4W Carbon	2	S
R709, 710	ERD10TJ2R2	2.2 1/4W Carbon	2	S ⚠

Ref. No.	Part No.	Part Name & Description			Per Set	Remarks
R711, 712	ERD25FJ820	82	1/4W	Carbon	2	S
R713, 714	ERD25TJ333	33k	1/4W	Carbon	2	S
R715, 716	ERD25FJ820	82k	1/4W	Carbon	2	S
R717, 718	ERD10TJ2R2	2.2	1/10W	Carbon	2	S ⚠
R719, 720	ERD25FJ221	220	1/2W	Carbon	2	S
R801, 802	ERD25TJ105	1	1/4W	Carbon	2	S
R803, 804	ERD25FJ682	6.8k	1/4W	Carbon	2	S
R805, 806	ERD25FJ221	220	1/4W	Carbon	2	S
R807	ERD25TJ105	1	1/4W	Carbon	1	S
R808	ERD25FJ332	3.3k	1/4W	Carbon	1	S
R809	ERD25FJ102	1k	1/4W	Carbon	1	S
R810	ERD25TJ684	680k	1/4W	Carbon	1	S
R811	ERD25FJ471	470	1/4W	Carbon	1	S
R812	ERD25FJ152	1.5k	1/4W	Carbon	1	S
R813, 814	ERD25TJ153	15k	1/4W	Carbon	2	S
R815, 816	ERD25TJ105	1	1/4W	Carbon	2	S
R817, 818	ERD25TJ153	15k	1/4W	Carbon	2	S
R819, 820	ERD25FJ560	56	1/4W	Carbon	2	S
R821	ERD25FJ102	1k	1/4W	Carbon	1	S
R823	ERD25FJ392	3.9k	1/4W	Carbon	1	S
R824, 825	ERD25TJ273	27k	1/4W	Carbon	2	S
R828, 829	ERD25TJ274	270k	1/4W	Carbon	2	S
R830	ERD25FJ822	8.2k	1/4W	Carbon	1	S
R831	ERD25TJ153	15k	1/4W	Carbon	1	S
R832	ERD25TJ105	1	1/4W	Carbon	1	S
R833	ERD25TJ153	15k	1/4W	Carbon	1	S
R834	ERD25FJ560	56	1/4W	Carbon	1	S
R835	ERD25FJ822	8.2k	1/4W	Carbon	1	S
R836	ERD25TJ823	82k	1/4W	Carbon	1	S
R837, 838	ERD25TJ393	39k	1/4W	Carbon	2	S
R839	ERD25TJ183	18k	1/4W	Carbon	1	S
R840	ERD25FJ562	5.6k	1/4W	Carbon	1	S
R841, 842	ERD25TJ104	100k	1/4W	Carbon	2	S
R843, 844	ERD25FJ562	5.6k	1/4W	Carbon	2	S
R845, 846	ERD25TJ393	39k	1/4W	Carbon	2	S
R847	ERD25TJ183	18k	1/4W	Carbon	1	S
R848	ERD25FJ562	5.6k	1/4W	Carbon	1	S
R849	ERD25TJ123	12k	1/4W	Carbon	1	S
R850	ERD25TJ393	39k	1/4W	Carbon	1	S
R851	ERD25TJ123	12k	1/4W	Carbon	1	S
R852	ERD25FJ562	5.6k	1/4W	Carbon	1	S
R854	ERD25TJ153	15k	1/4W	Carbon	1	S
R855	ERD25TJ333	33k	1/4W	Carbon	1	S
R856	ERD25TJ393	39k	1/4W	Carbon	1	S
R857, 858	ERD25TJ104	100k	1/4W	Carbon	2	S
R860	ERD25TJ223	22k	1/4W	Carbon	1	S
R861	ERD25TJ273	27k	1/4W	Carbon	1	S
R862	ERD25TJ333	33k	1/4W	Carbon	1	S
R863	ERD25TJ224	220k	1/4W	Carbon	1	S
R864	ERD25TJ333	33k	1/4W	Carbon	1	S
R865, 866	ERD25TJ823	82k	1/4W	Carbon	2	S
R867	ERD25FJ681	680	1/4W	Carbon	1	S
R868, 869	ERD25FJ391	390	1/4W	Carbon	2	S
R870	ERD25TJ563	56k	1/4W	Carbon	1	S
R871, 872	ERD25TJ473	47k	1/4W	Carbon	2	S
R873	ERD25TJ473	47k	1/4W	Carbon	1	S
R874	ERD25FJ681	680	1/4W	Carbon	1	S
R875	ERD25TJ683	68k	1/4W	Carbon	1	S

Ref. No.	Part No.	Part Name & Description			Per Set	Remarks
R876	ERD25FJ472	4.7	1/4W	Carbon	1	S
R877	ERD25FJ221	220	1/4W	Carbon	1	S
R878	ERD25TJ473	47k	1/4W	Carbon	1	S
R879	ERD25TJ333	33k	1/4W	Carbon	1	S
R881	ERD25FJ682	6.8k	1/4W	Carbon	1	S
R882	ERD25TJ183	18k	1/4W	Carbon	1	S
R883	ERD25FJ472	4.7k	1/4W	Carbon	1	S
R884	ERD25TJ154	150k	1/4W	Carbon	1	S
R885, 886	ERD25TJ154	150k	1/4W	Carbon	2	S
R887	ERD25FJ103	10k	1/4W	Carbon	1	S
R888	ERD25FJ151	150	1/4W	Carbon	1	S
R889	ERD25FJ103	10k	1/4W	Carbon	1	S
R890	ERD25TJ473	47k	1/4W	Carbon	1	S
R891	ERD25FJ103	10k	1/4W	Carbon	1	S
R892	ERD25TJ333	33k	1/4W	Carbon	1	S
R893	ERD25FJ103	10k	1/4W	Carbon	1	S
R894	ERD25FJ102	1k	1/4W	Carbon	1	S
R895	ERD25FJ103	10k	1/4W	Carbon	1	S
R896	ERD25TJ473	47k	1/4W	Carbon	1	S
R897	ERD25FJ221	220	1/4W	Carbon	1	S
R901	ERD25FJ221	220	1/4W	Carbon	1	S
R902	ERD25FJ122	1.2k	1/4W	Carbon	1	S
R903	ERD10TJ100	10	1/10W	Carbon	1	S ⚠
R904	ERD25FJ221	220	1/4W	Carbon	1	S
R905	ERD25FJ472	4.7k	1/4W	Carbon	1	S
R906	ERX1ANJPR47S	0.47	1W	Metal Film	1	⚠
R907	ERD50FJ4R7	4.7	1/2W	Carbon	1	S ⚠
R908	ERD25FJ100	10	1/4W	Carbon	1	S
R8001,8002	ERD25TJ154	150k	1/4W	Carbon	2	S
R8003,800	ERD25FJ122	1.2k	1/4W	Carbon	2	S
R8005,8006	ERD25FJ681	680	1/4W	Carbon	2	S
R8007	ERD25FJ122	1.2k	1/4W	Carbon	1	S
R8008	ERD25FJ222	2.2k	1/4W	Carbon	1	S
R8009	ERD25FJ103	10k	1/4W	Carbon	1	S
R8010	ERD25FJ332	3.3k	1/4W	Carbon	1	S
R8011,8012	ERD25FJ681	680	1/4W	Carbon	2	S
R8013	ERD25FJ151	150	1/4W	Carbon	1	S
R8014	ERD25FJ390	39	1/4W	Carbon	1	S
R8015	ERD25FJ101	100	1/4W	Carbon	1	S
R8016	ERD25TJ333	33k	1/4W	Carbon	1	S
R8017	ERD25TJ273	27k	1/4W	Carbon	1	S
R8018	ERD25TJ153	15k	1/4W	Carbon	1	S
R8019	ERD25TJ154	150k	1/4W	Carbon	1	S
R8021,8022	ERD25TJ273	27k	1/4W	Carbon	2	S
R8027	ERD25TJ274	270k	1/4W	Carbon	1	S
R8028	ERD25FJ102	1k	1/4W	Carbon	1	S
R8029	ERD25TJ4R7	4.7	1/10W	Carbon	1	S ⚠
R8030	ERD25TJ154	150k	1/4W	Carbon	1	S
R8031	ERD25FJ103	10k	1/4W	Carbon	1	S
R8032	ERD25TJ393	39k	1/4W	Carbon	1	S
R8035	ERD25FJ221	220	1/4W	Carbon	1	S
R8039,8040	ERD25TJ823	82k	1/4W	Carbon	2	S
CAPACITORS (Value is in MICRO FARADS except. P. P = PICO FARADS)						
C1, 2	ECEA50Y4R7	4.7	50V	Electrolytic	2	S
C3	ECKD1H223ZF	0.022	50V	Ceramic	1	S
C101	ECFD1E1103MD	0.01	25V	Semi-Conductor	1	S

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Ref. No.	Part No.	Part Name & Description			Per Set	Remarks
C102	ECKD1C103ZF	0.01	50V	Ceramic	1	S
C103	ECCD1H180K	18p	50V	Ceramic	1	S
C104	ECCD1H100F	10p	50V	Ceramic	1	S
C105, 106	ECCD1H150K	15p	50V	Ceramic	2	S
C107	ECCD1H050D	5p	50V	Ceramic	1	S
C108, 109	ECKD1H103ZF	0.01	50V	Ceramic	2	S
C110	ECFD1E223MD	0.022	25V	Semi-Conductor	1	S
C111	ECFDE473MD	0.047	25V	Semi-Conductor	1	S
C112	ECEA1ES101	100p	50V	Electrolytic	1	S
C113	ECCD1H040D	4p	50V	Ceramic	1	S
C114	ECFD1E223MD	0.022	25V	Semi-Conductor	1	S
C115	ECFD1E473MD	0.047	25V	Semi-Conductor	1	S
C116	ECFD1E103MD	0.01	25V	Semi-Conductor	1	S
C201	ECKD1H102KB	0.001	50V	Ceramic	1	S
C202, 203	ECKD1H103ZF	0.01	50V	Ceramic	2	S
C204	ECCD1H270K	27p	50V	Ceramic	1	S
C205	ECFD1E223MD	0.022	25V	Semi-Conductor	1	S
C206	ECCD1H220K	22	50V	Ceramic	1	S
C207, 208	ECFD1E223MD	0.022	25V	Semi-Conductor	2	S
C209	ECFD1E223MD	0.022	25V	Semi-Conductor	1	S
C210	ECFD1E473MD	0.047	25V	Semi-Conductor	1	S
C211	ECCD1H220K	22p	50V	Ceramic	1	S
C212, 213	ECFD1E223MD	0.022	25V	Semi-Conductor	2	S
C214	ECKD1H103ZF	0.01	50V	Ceramic	1	S
C215	ECEA50Z3R3	3.3	50V	Electrolytic	1	S
C216	ECCD1H330K	33p	50V	Ceramic	1	S
C217	ECFD1E223MD	0.022	25V	Semi-Conductor	1	S
C218	ECEA1HS100	10	50V	Electrolytic	1	S
C220	ECCD1H050D	5p	50V	Ceramic	1	S
C221	ECFD1E223MD	0.022	25V	Semi-Conductor	1	S
C222	ECEA25Z4R7	4.7	25V	Electrolytic	1	S
C223	ECKD1H103ZF	0.01	50V	Ceramic	1	S
C224, 225	ECFD1E103MD	0.01	25V	Semi-Conductor	2	S
C226	ECFD1E223MD	0.022	25V	Semi-Conductor	1	S
C227	ECFD1E103MD	0.01	25V	Semi-Conductor	1	S
C228	ECEA50MR68R	0.68	50V	Electrolytic	1	S
C229	ECFD1E333MD	0.033	25V	Semi-Conductor	1	S
C230	ECEA1HS100	10	50V	Electrolytic	1	S
C231	ECKD1H103ZF	0.01	50V	Ceramic	1	S
C232	ECCD1H020C	2p	50V	Ceramic	1	S
C233	ECCD1H080D	8p	10V	Ceramic	1	S
C301	ECEA1AS471	470	10V	Electrolytic	1	S
C302	ECFD1E473MD	0.047	25V	Semi-Conductor	1	S
C303	ECQS1152JZ	1500p	125V	Polystyrene Film	1	S
C304	ECEA50M1R	1	50V	Electrolytic	1	S
C305, 306	ECFD1E153MD	0.015	25V	Semi-Conductor	2	S
C307, 308	ECEA50MR22R	0.22	50V	Electrolytic	2	S
C309	ECEA50MR22R	0.22	50V	Electrolytic	1	S
C310	ECEA50MR47R	0.47	50V	Electrolytic	1	S
C311	ECEA50Z010	1	50V	Electrolytic	1	S
C401, 402	ECKD1H681KB	680p	50V	Ceramic	2	S
C403, 404	ECKD1H332KB	0.0033	50V	Ceramic	2	S
C407, 408	ECFD1E333MD	0.033	25V	Semi-Conductor	2	S
C409, 410	ECKD1H222KB	0.0022	50V	Ceramic	2	S
C411, 412	ECKD1H681	680p	50V	Ceramic	2	S
C413, 414	ECEA1HS100	10	50V	Electrolytic	2	S
C415, 416	ECEA1HS100	10	50V	Electrolytic	2	S
C417, 418	ECEA1HS100	10	50V	Electrolytic	2	S

Ref. No.	Part No.	Part Name & Description			Per Set	Remarks
C419, 420	ECEA50MR47R	0.47	50V	Electrolytic	2	S
C421, 422	ECFD1E103MD	0.01	25V	Semi-Conductor	2	S
C423	ECEA1HS100	10	50V	Electrolytic	1	S
C424	ECEA50Z010	1	50V	Electrolytic	1	S
C425	ECKD1H223ZF	0.022	50V	Ceramic	1	S
C426	ECEA1HS100	10	50V	Electrolytic	1	S
C429, 430	ECEA50MR68R	0.68	50V	Electrolytic	2	S
C431, 432	ECEA50Z010	1	50V	Electrolytic	2	S
C433, 434	ECEA50Z3R3	3.3	50V	Electrolytic	2	S
C435, 436	ECQM1H473KZ	0.047	50V	Polyester	2	S
C437, 438	ECQM1H154KZ	0.15	50V	Polyester	2	S
C439, 440	ECQM1H473KZ	0.047	50V	Polyester	2	S
C441	ECEA1CS221	220	16V	Electrolytic	1	S
C443, 444	ECEA1HS100	10	50V	Electrolytic	1	S
C445, 446	ECQM1H154KZ	0.15	50V	Polyester	2	S
C447, 448	ECKD1H821KB	820p	50V	Ceramic	2	S
C501, 502	ECEA50M3R3R	3.3	50V	Electrolytic	2	S
C503, 504	ECEA50Z010	1	50V	Electrolytic	2	S
C505, 506	ECFD1E223MD	0.022	25V	Semi-Conductor	2	S
C507, 508	ECEA50MR22R	0.22	50V	Electrolytic	2	S
C509, 510	ECKD1H682KB	0.0068	50V	Ceramic	2	S
C511, 512	ECFD1E473MD	0.047	25V	Semi-Conductor	2	S
C513, 514	ECKD1H102KB	0.001	50V	Ceramic	2	S
C515, 516	ECEA50MR1R	0.1	50V	Electrolytic	2	S
C517, 518	ECKD1H472KB	0.0047	50V	Ceramic	2	S
C519	ECEA1ES101	100	25V	Electrolytic	1	S
C520, 521	ECKD1H222KB	0.0022	50V	Ceramic	2	S
C522	ECEA50Z3R3	3.3	50V	Electrolytic	1	S
C523	ECEA1ES221	220	25V	Electrolytic	1	S
C601, 602	ECEA50MR22R	0.22	50V	Electrolytic	2	S
C603, 604	ECKD1H102KB	0.001	50V	Ceramic	2	S
C605, 606	ECEA1AS470	47	10V	Electrolytic	2	S
C607, 608	ECCD1H680K	68p	50V	Ceramic	2	S
C609, 610	ECQM1H562KZ	0.0056	50V	Polyester	2	S
C611, 612	ECFD1E223MD	0.022	25V	Semi-Conductor	2	S
C613, 614	ECEA50MR47R	0.47	35V	Electrolytic	2	S
C615	ECEA1ES101	100	25V	Electrolytic	1	S
C617	ECEA1ES221	220	25V	Electrolytic	1	S
C701, 702	ECQM1H104KS	0.1	50V	Polyester	2	S
C703, 704	ECEA1CS330	33	16V	Electrolytic	2	S
C705, 706	ECEA1AS470	47	10V	Electrolytic	2	S
C707, 708	ECKD1H102KB	0.001	50V	Ceramic	2	S
C709, 710	ECEA50M1R	1	50V	Electrolytic	2	S
C711, 712	ECEA1AS101	100	10V	Electrolytic	2	S
C713, 714	ECEA1AS470	47	10V	Electrolytic	2	S
C715, 716	ECQM1H104KS	0.1	50V	Polyester	2	S
C717, 718	ECEA1ES101	100	25V	Electrolytic	2	S
C719, 720	ECEA1HS100	10	50V	Electrolytic	2	S
C721	ECEA1ES101	100	25V	Electrolytic	1	S
C801, 802	ECEA50MR47R	0.47	50V	Electrolytic	2	S
C803, 804	ECCD1H330K	33	50V	Ceramic	2	S
C805, 806	ECKDH102	0.001	50V	Ceramic	2	S
C807, 808	ECEA50Z010	1	50V	Electrolytic	2	S
C809	ECEA50MR1R	0.1	50V	Electrolytic	1	S
C810	ECCD1H330K	33p	50V	Ceramic	1	S
C811	ECKD1H102KB	0.001	50V	Ceramic	1	S
C812	ECEA50Z010	1	50V	Electrolytic	1	S
C813, 814	ECEA50MR1R	0.1	50V	Electrolytic	2	S

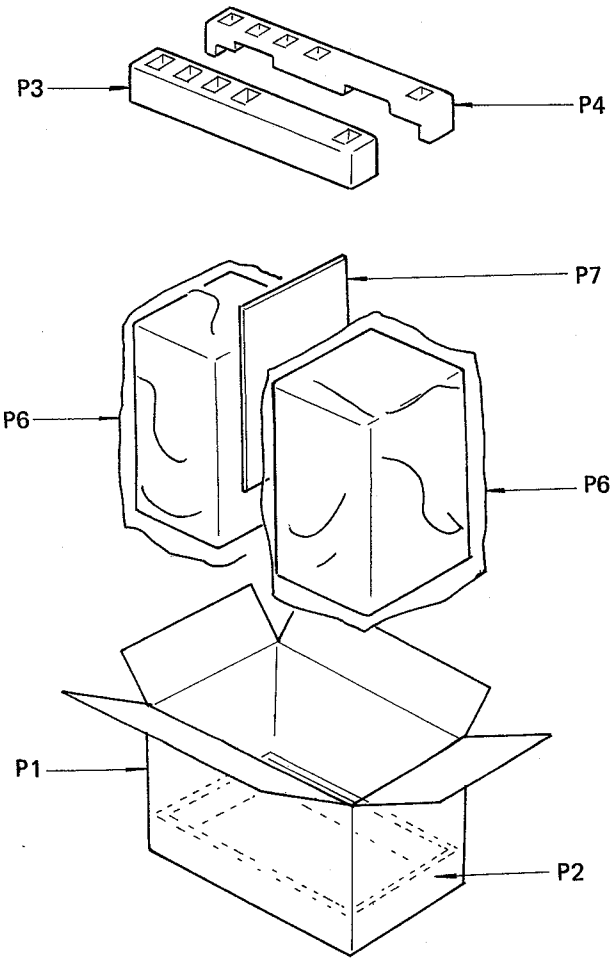
Ref. No.	Part No.	Part Name & Description			Per Set	Remarks
C815, 816	ECKD1H102KB	0.001	50V	Ceramic	2	S
C817, 818	ECEA50Z010	1	50V	Electrolytic	2	S
C819	ECFD1E223MD	0.022	25V	Semi-Conductor	1	S
C820, 821	ECEA50MR1R	0.1	50V	Electrolytic	2	S
C822	ECEA50Z010	1	50V	Electrolytic	1	S
C823	ECEA1CS221	220	16V	Electrolytic	1	S
C824	ECEA1ES101	100	25V	Electrolytic	1	S
C825	ECEA1HN010	1	50V	Electrolytic	1	S
C827	ECKD1H222KB	0.0022	50V	Ceramic	1	S
C828	ECFD1E223MD	0.022	25V	Semi-Conductor	1	S
C829	ECEA50Z3R3	3.3	50V	Electrolytic	1	S
C830	ECEA1HN010	1	50V	Electrolytic	1	S
C831	ECFD1E333MD	0.033	25V	Semi-Conductor	1	S
C832	ECKD1H332KB	0.0033	50V	Ceramic	1	S
C833	ECFD1E333MD	0.033	25V	Semi-Conductor	1	S
C834	ECEA1HN010	1	50V	Electrolytic	1	S
C835	ECFD1E333MD	0.033	25V	Semi-Conductor	1	S
C836	ECKD1H332KB	0.0033	50V	Ceramic	1	S
C837	ECFD1E223MD	0.022	25V	Semi-Conductor	1	S
C838, 839	ECEA50Z010	1	50V	Electrolytic	2	S
C840	ECEA50Z3R3	3.3	50V	Electrolytic	1	S
C841	ECKD1H222KB	0.0022	50V	Ceramic	1	S
C842	ECEA25Z4R7	4.7	25V	Electrolytic	1	S
C843, 844	ECKD1H331KB	330p	50V	Ceramic	2	S
C845, 846	ECKD1H471KB	470p	50V	Ceramic	2	S
C847	ECKD1H18KB	180p	50V	Ceramic	1	S
C848, 849	ECEA25Z4R7	4.7	25V	Electrolytic	2	S
C850	ECEA25Z4R7	4.7	25V	Electrolytic	1	S
C851	ECEA1CS330	33	16V	Electrolytic	1	S
C852	ECEA1HS100	10	50V	Electrolytic	1	S
C853	ECFD1E103MD	0.01	25V	Semi-Conductor	1	S
C854	ECEA1HS100	10	50V	Electrolytic	1	S
C855	ECEA1ES220	22	25V	Electrolytic	1	S
C856	ECKD1H102KB	0.001	50V	Ceramic	1	S
C857	ECKD1H101KB	100p	50V	Ceramic	1	S
C858	ECEA50MR22R	0.22	50V	Electrolytic	1	S
C859	ECEA1CS330	33	16V	Electrolytic	1	S
C860	ECEA50Z010	1	50V	Electrolytic	1	S
C861, 862	ECEA25Z4R7	4.7	25V	Electrolytic	2	S
C863	ECEA1HS100	10	50V	Electrolytic	1	S
C866	ECEA1ES101	100	25V	Electrolytic	1	S
C867, 868	ECEA50Z010	1	50V	Electrolytic	2	S
C869, 870	ECEA50Z010	1	50V	Electrolytic	2	S
C871, 872	ECEA1HS100	10	50V	Electrolytic	2	S
C873, 874	ECKD1H102KD	0.001	50V	Ceramic	2	S
C875	ECEA1AS101	100	10V	Electrolytic	1	S
C876	ECKD1H331KB	330p	50V	Ceramic	1	S
C877	ECEA50MR47R	0.47	50V	Electrolytic	1	S
C878	ECKD1H102KB	0.001	50V	Ceramic	1	S
C879	ECEA1CS221	220	16V	Electrolytic	1	S
C880, 881	ECEA1ES470	47	25V	Electrolytic	2	S
C882	ECKD1H223ZF	0.022	50V	Ceramic	1	S
C883	ECFD1E103MD	0.01	25V	Semi-Conductor	1	S
C887, 888	ECKD1H472KB	0.047	50V	Ceramic	2	S
C891	ECKD1H223ZF	0.022	50V	Ceramic	1	S
C901	ECKD1H103ZF	0.01	50V	Ceramic	1	S
C902	ECEA1AS221	220	10V	Electrolytic	1	S
C903	ECEA1VS102	1000	35V	Electrolytic	1	S

Ref. No.	Part No.	Part Name & Description			Per Set	Remarks
C904	ECEA1ES101	100	25V	Electrolytic	1	S
C905	ECET25R103SW	0.01	25V	Electrolytic	1	S
C906	ECEA1AS101	100	10V	Electrolytic	1	S
C907	ECEA1CS330	33	16V	Electrolytic	1	S
		ELECTRICAL PARTS				
E1	SDH270-1	Pointer Guide			1	
E2	SUW1750	Bracket A			1	
E3	SDT1272	Tuning Shaft			1	
E4	SDD80-1	Dial Drum			1	
E5	RDS417	Spring			1	
E6	RDZ05-A	Dial Cord				
E7	SDR10	Roller			4	
E8	RHG211	Rubber, Stereo Eye			1	
E9	SHG9100	Rubber, Lamp			1	
E10	SMC308	Bracket B			1	
E11	SMC326	Bracket C			1	
E12	SMC230-1	Bracket D			1	
E13	SMX218	Insulator			1	
E14	SMX188	Spacer A			1	
E15	SDP1034	Dial Pointer			1	
E15-1	SWE28-1	Lamp, Dial Pointer			1	
E16	SJC118	Terminal Battery (+)			4	
E17	SJC514	Terminal, Battery (−)			4	
E18	RHR969Z	Latch A			10	
E19	SHR9112	Latch B			4	
E20	SUV202	Insulator Board, Terminal			1	
E21	RUV387Z	Cover, Voltage Selector			1	⚠
E22	SUV206	Cover, Jack			1	⚠
E23	SJF9902	Terminal Board			1	
E24	SJF4303	Terminal, Antenna			1	
E25	SJJ102	Jack, AC/DC			1	⚠
E26	SUV214	Cover, Terminal			1	
E27	SHR9146	Sheet			1	
E28	XCH6P21F	Jack, Head Phone			1	
E29	XJC6P21A	Jack, Micro Phone			4	
		CABINET PARTS				
K1	SYK1778	Cabinet A Ass'y			1	
K2	SYK1784	Cabinet B Ass'y			1	
K3	SKH112-1	Handle			1	
K4	SKH114	Cover, Handle			1	
K5	SUD256	Bracket			1	
K6	SBE276-1	Lock			2	
K7	SBE278	Holder, Lock			2	
K8	SBH4002	Hinge			2	
K9	SBH4004	Holder, Hinge				
K10	SUW1996	Bracket, Lock			4	
K11	SIW1998-1	Bracket, Hinge			2	
K12	SUW2000-2	Spacer A			3	
K13	SUW2002-1	Spacer B			1	
K14	SUW2004	Spacer C			1	
K15	SUW2048	Bracket, Antenna			1	
K16	SKE366	Accessory Box			1	
K17	SYP492	Panel, Front			1	
K18	SYE652-1	Cassette Lid			1	
K19	SYE736	Connector Plate Ass'y			1	
K20	SYE798	Battery Cover Ass'y			1	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
K21	SBC190-1	Button, Reset	1	
K22	SUW2008	Spacer, Reset Button	1	
K23	SHS3020	Felt	1	
K24	XEASDS194EA	Telescopic Antenna	1	
K25	SBN962-1	Knob, Tuning	1	
K26	SBN964	Knob, Volume	1	
K27	SBN966	Knob, Blance	8	
K28	SBN968	Knob, Rec Level	2	
K29	SBN970	Knob, Power	1	
K30	SBN972	Knob	6	
K31	SBN982	Lever, Source Attenuator	1	
K32	SBC426	Button, Cassette	6	
K33	SBN974	Knob, Left Rec	1	
K34	SBN976	Knob, Right Rec	1	
K35	SYE686-3	Button, Program	1	
K36	SYE740	Button, Light Switch	1	
K37	SGE1158	Cover, Jack	1	
K38	SBN968-1	Knob, Band	1	
K39	SBN968-2	Knob, Selector	1	
K40	SUB242	Spacer A, LED	2	
K41	SUD222	Spacer B, LED	2	
		SPEAKER BOX		
E1	RJF3109	Terminal, Speaker	2	
E2	SJR202	Terminal Strip	2	
E3	ELEC50Y4R7	Capacitor, 50V 4.7μF (C1, C2)	2	
K1	SYK1780	Cabinet Ass'y Speaker (Right)	1	
K2	SYK1782	Cabinet Ass'y Speaker (Left)	1	
K3	SKH112-1	Handle (for Right Speaker Box)	1	
K4	SKH1144	Cover, Handle (for Right Speaker Box)	1	
K5	SHG9160	Rubber, Cushio (for Right Speaker Box)	2	
K6	USD258	Bracket, Handle (for Right Speaker Box)	1	
K7	SBE276-1	Lock (for Right Speaker Box)	2	
K8	SBE278	Holder, Lock (for Left Speaker Box)	2	
K9	SBH4002	Hinge (for Left Speaker Box)	2	
K10	SBH4004	Holder, Hinge (for Right Speaker Box)	2	
K11	USW1996	Bracket, Lock	4	
K12	SUW1998-1	Bracket, Hinge	4	
K13	SYB238-2	Baffle Ass'y Right	1	
K14	SGX1190	Ornament A, Speaker	2	
K15	SGX1192	Ornament B, Speaker	2	
K16	SGM320	Cover A, Speaker	2	
K17	SGM340	Cover B Speaker	2	
K18	SYB236-2	Baffle Ass'y Left	1	
		ACCESSORIES		
A1	RJA22Y	Power Cord	1	S ⚠
A2	SJP2132	Speaker Cord	2	⚠
A3	SJP2134	Car Battery Cord	1	
A4	RD44(M)	Microphone	1	
		PACKING MATERIALS		
P1	SPN4150	Carton Box	1	
P2	SPN3994	Pad, Bottom	1	
P3	SPN3996	Pad A Upper	1	
P4	SPN3998	Pad B, Upper	1	
P5	SPF50	Poly Bag, Power Cord	1	
P6	XZB63X87C05	Poly Bag	2	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
P71	SPN4000	Pad, Center	1	
		PRINTED MATERIALS		
Y1	RQX6552ZA	Instruction Book	1	

PACKING MATERIALS



TSD
Printed in Japan

SCHEMATIC DIAGRAM (RADIO SECTION)

FM RF AMP
IC101
AN7213

SWITCHING
D101
MA150LF

FM IF AMP
Q201
2SC1359-B

FM IF & AM RF, IF AMP
IC201
AN217P-BB

FM MPX
IC301
LA3350S

SIGNAL METER AMP
Q202
2SC1359-B
Q301
2SC945LFV-P,K

RECT
D207
MA150LF

RECT
D206
0A90LF

AM DET
D201
0A90LF

FM DET
D202,203
20A90LF

RECT
D204,205
0A90LF

SUP12421

AFC
D102
MA345LF

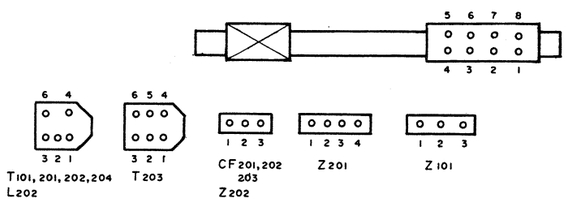
SWITCHING
D301
MA150LF

SUP12401K

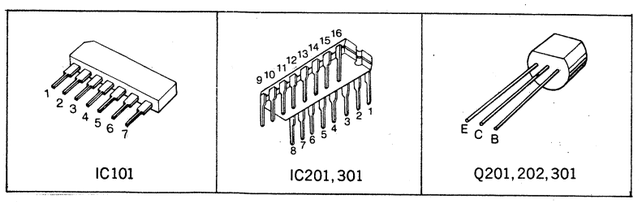
NOTES:
1. S201-1, 201-2: RADIO BAND SELECTOR SWITCH in "AM" position.
2. DC voltage measurements are taken with electronics voltmeter from negative terminal of battery.
   ( )...“AM” position, [ ]...“FM” position.

shows power source line.
shows “FM” signal.
shows “AM” signal.

BOTTOM VIEW

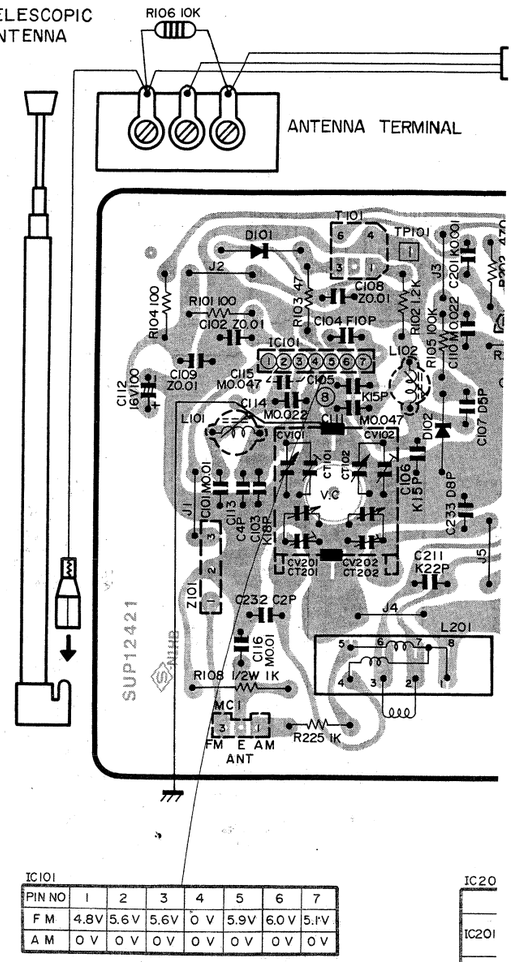


G1



G2

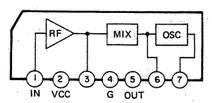
CIRCUIT BOARD AND



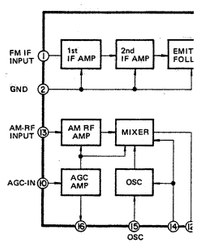
IC101

PIN NO	1	2	3	4	5	6	7
F M	4.8V	5.6V	5.6V	0 V	5.9V	6.0V	5.1V
A M	0 V	0 V	0 V	0 V	0 V	0 V	0 V

IC101 AN7213

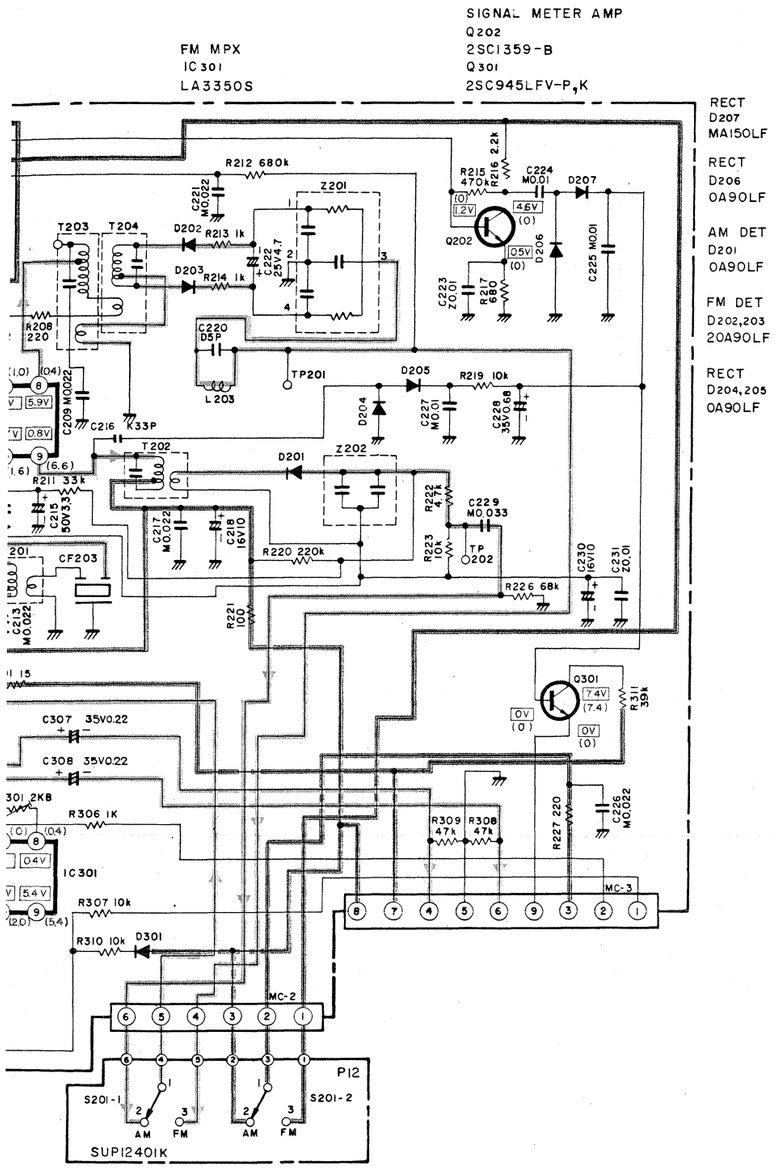


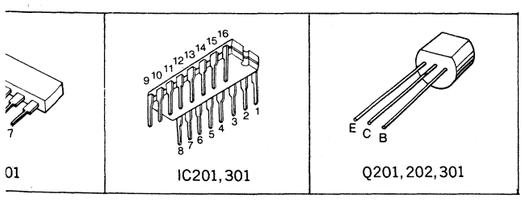
IC201 AN217P



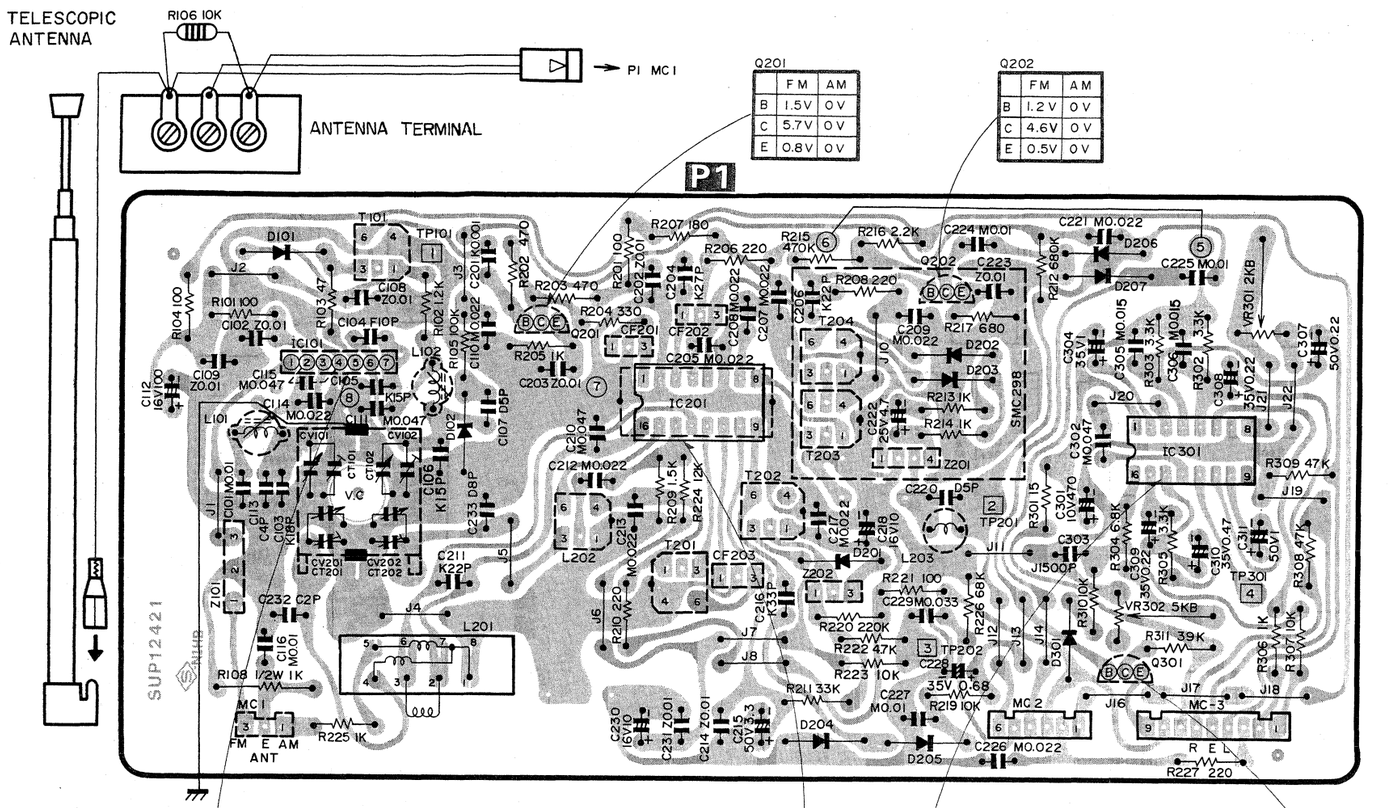
G3

)IO SECTION)





CIRCUIT BOARD AND WIRING CONNECTION (RF SECTION)



Q201	FM	AM
B	1.5V	0V
C	5.7V	0V
E	0.8V	0V

Q202	FM	AM
B	1.2V	0V
C	4.6V	0V
E	0.5V	0V

IC101

PIN NO	1	2	3	4	5	6	7
FM	4.8V	5.6V	5.6V	0V	5.9V	6.0V	5.1V
AM	0V	0V	0V	0V	0V	0V	0V

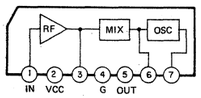
IC201,301

	PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
IC201	FM	0.8V	0V	2.1V	4.4V	1.1V	0V	1.1V	5.9V	0.8V	0.7V	0.8V	0.7V	0.5V	0.7V	0.7V	0.5V
	AM	0.8V	0V	2.0V	4.3V	1.1V	0V	1.0V	0.4V	6.6V	1.6V	0.8V	6.3V	0.7V	1.6V	6.3V	0.7V
IC301	FM	6.7V	2.7V	4.8V	4.5V	4.5V	15.0V	0V	0.4V	5.4V	2.0V	2.0V	2.1V	2.0V	2.0V	2.0V	2.3V
	AM	6.7V	2.7V	4.8V	4.5V	4.5V	15.0V	0V	0.4V	5.4V	2.0V	2.0V	0.2V	2.0V	2.0V	2.0V	3.1V

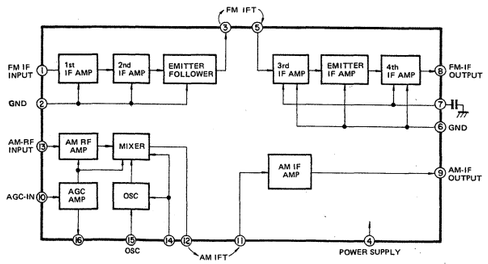
Q301

	FM	AM
B	0V	0V
C	7.4V	7.4V
E	0V	0V

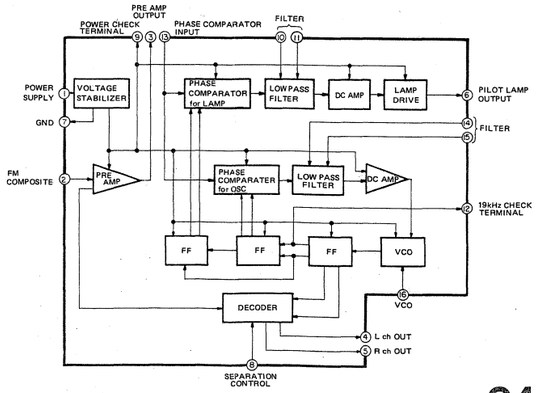
IC101 AN7213



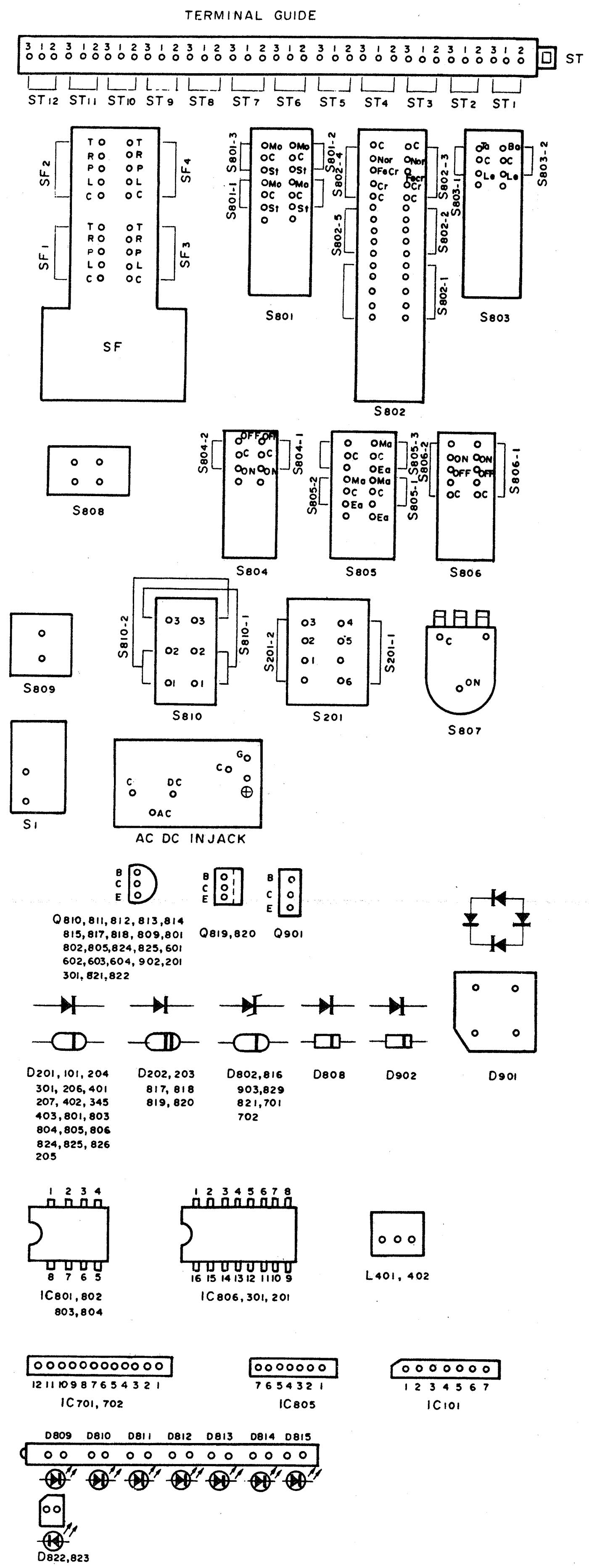
IC201 AN217P



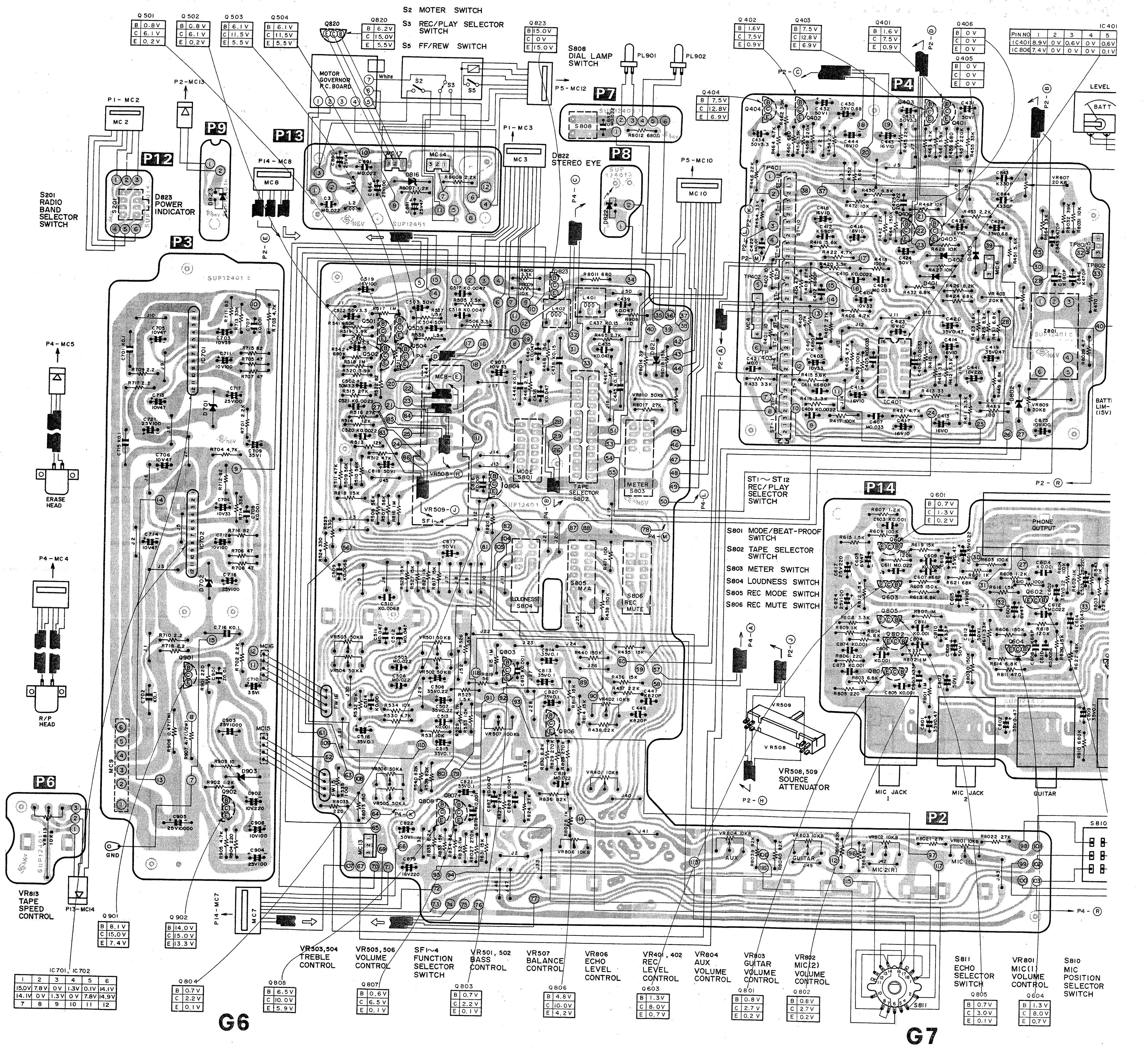
IC301 LA3350S



CIRCUIT BOARD AND WIRING CONNECTION (AUDIO SEC



TERMINAL GUIDE
ST
ST12 ST11 ST10 ST9 ST8 ST7 ST6 ST5 ST4 ST3 ST2 ST1
SF1 SF2 SF3 SF4
SF
S801
S802
S803
S808
S804
S805
S806
S809
S810
S201
S807
S1
AC DC INJACK
Q810, 811, 812, 813, 814
815, 817, 818, 809, 801
802, 805, 824, 825, 601
602, 603, 604, 902, 201
301, 821, 822
Q819, 820
Q901
D201, 101, 204
301, 206, 401
207, 402, 345
403, 801, 803
804, 805, 806
824, 825, 826
205
D202, 203
817, 818
819, 820
D802, 816
903, 829
821, 701
702
D808
D902
D901
IC801, 802
803, 804
IC806, 301, 201
L401, 402
IC701, 702
IC805
IC101
D809 D810 D811 D812 D813 D814 D815
D822, 823



S2 MOTER SWITCH
S3 REC/PLAY SELECTOR SWITCH
S5 FF/REW SWITCH
MOTOR GOVERNOR P.C. BOARD
S808 DIAL LAMP SWITCH
PL901
PL902
P1-MC2
P2-MC13
P9
P12
P13
P14-MC8
P1-MC3
P5-MC12
P7
P8
P5-MC10
D822 STEREO EYE
S201 RADIO BAND SELECTOR SWITCH
D823 POWER INDICATOR
P3
P4
P4-MC5
ERASE HEAD
P4-MC4
R/P HEAD
P6
VR813 TAPE SPEED CONTROL
P13-MC14
GND
P14-MC7
LEVEL
BATT
BATT LIM- (15V)
ST1 ~ ST12 REC/PLAY SELECTOR SWITCH
S801 MODE/BEAT-PROOF SWITCH
S802 TAPE SELECTOR SWITCH
S803 METER SWITCH
S804 LOUDNESS SWITCH
S805 REC MODE SWITCH
S806 REC MUTE SWITCH
P14
PHONE OUTPUT
VR508, 509 SOURCE ATTENUATOR
MIC JACK 1
MIC JACK 2
GUITAR
P2
S810
P2-R
P4-R
VR503, 504 TREBLE CONTROL
VR505, 506 VOLUME CONTROL
SF1~4 FUNCTION SELECTOR SWITCH
VR501, 502 BASS CONTROL
VR507 BALANCE CONTROL
VR806 ECHO LEVEL CONTROL
VR401, 402 REC LEVEL CONTROL
VR804 AUX VOLUME CONTROL
VR803 GUITAR VOLUME CONTROL
VR802 MIC(2) VOLUME CONTROL
S811 ECHO SELECTOR SWITCH
VR801 MIC(1) VOLUME CONTROL
S810 MIC POSITION SELECTOR SWITCH

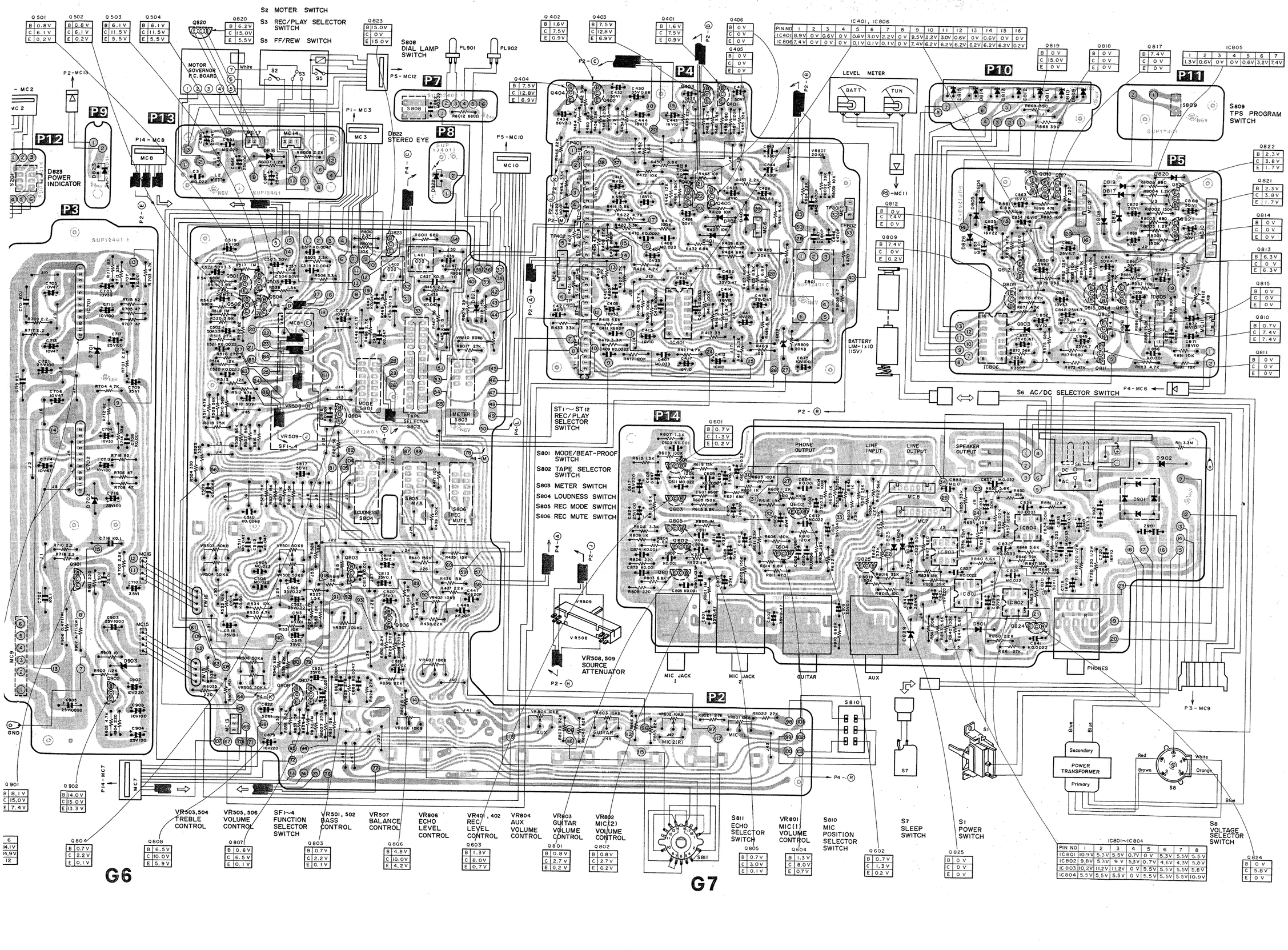
Transistor	B	C	E
Q501	0.8V	6.1V	0.2V
Q502	0.8V	6.1V	0.2V
Q503	6.1V	11.5V	5.5V
Q504	6.1V	11.5V	5.5V
Q820	6.2V	15.0V	5.5V
Q823	15.0V	0V	15.0V
Q402	1.6V	7.5V	0.9V
Q403	7.5V	12.8V	6.9V
Q401	1.6V	7.5V	0.9V
Q406	0V	0V	0V
Q405	0V	0V	0V
Q404	7.5V	12.8V	6.9V
Q601	0.7V	1.3V	0.2V
Q901	8.1V	15.0V	7.4V
Q902	14.0V	15.0V	13.3V
Q804	0.7V	2.2V	0.1V
Q808	6.5V	10.0V	5.9V
Q807	0.6V	6.5V	0.1V
Q803	0.7V	2.2V	0.1V
Q806	4.8V	10.0V	4.2V
Q603	1.3V	8.0V	0.7V
Q801	0.8V	2.7V	0.2V
Q802	0.8V	2.7V	0.2V
Q805	0.7V	3.0V	0.1V
Q604	1.3V	8.0V	0.7V

PIN NO	1	2	3	4	5
IC401	8.9V	0V	0.6V	0V	0.6V
IC806	7.4V	0V	0V	0V	0.1V

IC701, IC702

1	2	3	4	5	6
15.0V	7.8V	0V	1.3V	0.1V	14.1V
14.1V	0V	1.3V	0V	7.8V	14.9V
7	8	9	10	11	12

CIRCUIT BOARD AND WIRING CONNECTION (AUDIO SECTION)



Q501	Q502	Q503	Q504
B 0.8V	B 6.8V	B 6.1V	B 6.1V
C 6.1V	C 6.1V	C 11.5V	C 11.5V
E 0.2V	E 0.2V	E 5.5V	E 5.5V

Q820	Q820	Q823
B 6.2V	B 15.0V	B 15.0V
C 15.0V	C 0V	C 0V
E 5.5V	E 15.0V	E 15.0V

Q402	Q403	Q401	Q406
B 1.6V	B 7.5V	B 1.6V	B 0V
C 7.5V	C 12.8V	C 7.5V	C 0V
E 0.9V	E 6.9V	E 0.9V	E 0V

Q404	Q405
B 7.5V	B 0V
C 12.8V	C 0V
E 6.9V	E 0V

IC401, IC806

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
IC401	8.9V	0V	0.6V	0V	0.6V	3.0V	2.2V	0V	9.5V	2.2V	3.0V	0.6V	0V	0.6V	0V	0V
IC806	7.4V	0V	0V	0V	0.1V	0.1V	0.1V	0V	7.4V	6.2V	6.2V	6.2V	6.2V	6.2V	6.2V	0.2V

Q819	Q818	Q817
B 0V	B 0V	B 7.4V
C 15.0V	C 0V	C 0V
E 0V	E 0V	E 0V

IC805

1	2	3	4	5	6	7
1.3V	0.6V	0V	0V	0.6V	3.2V	7.4V

Q822	Q821	Q814	Q813	Q815	Q810	Q811
B 2.3V	B 2.3V	B 0V	B 6.3V	B 0V	B 0.7V	B 0V
C 3.8V	C 3.8V	C 0V	C 0V	C 0V	C 7.4V	C 0V
E 1.7V	E 1.7V	E 0V	E 6.3V	E 0V	E 7.4V	E 0V

Q812	Q809
B 0V	B 7.4V
C 7.4V	C 0V
E 0V	E 0.2V

Q601
B 0.7V
C 1.3V
E 0.2V

Q901	Q902
B 8.1V	B 14.0V
C 15.0V	C 15.0V
E 7.4V	E 13.3V

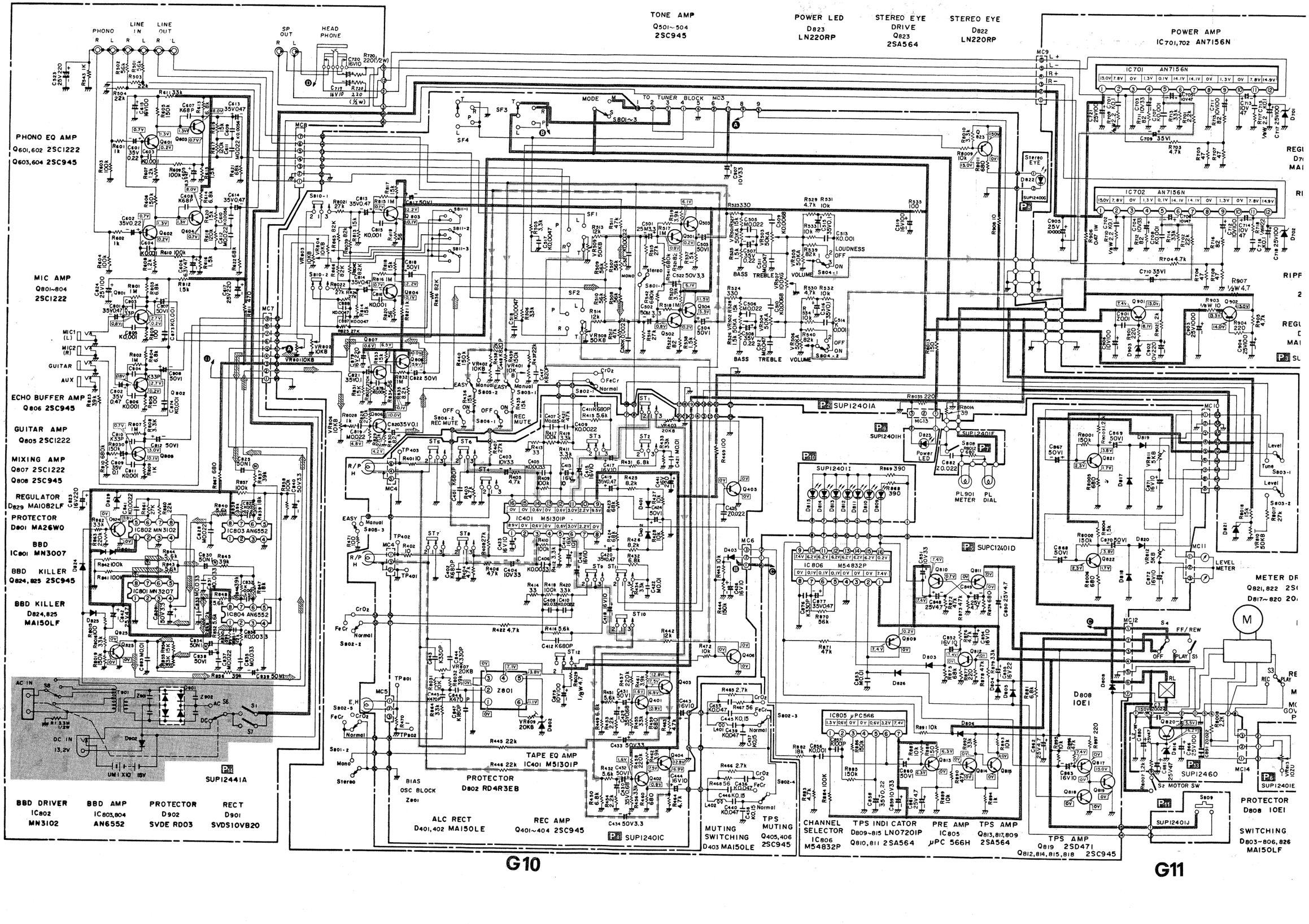
Q804	Q808	Q807	Q803	Q806	Q603	Q801	Q802
B 0.7V	B 6.5V	B 0.6V	B 0.7V	B 4.8V	B 1.3V	B 0.8V	B 0.8V
C 2.2V	C 10.0V	C 6.5V	C 2.2V	C 10.0V	C 8.0V	C 2.7V	C 2.7V
E 0.1V	E 5.9V	E 0.1V	E 0.1V	E 4.2V	E 0.7V	E 0.2V	E 0.2V

Q805	Q604	Q602	Q825	Q824
B 0.7V	B 1.3V	B 0.7V	B 0V	B 0V
C 3.0V	C 8.0V	C 1.3V	C 0V	C 5.8V
E 0.1V	E 0.7V	E 0.2V	E 0V	E 0V

IC801～IC804

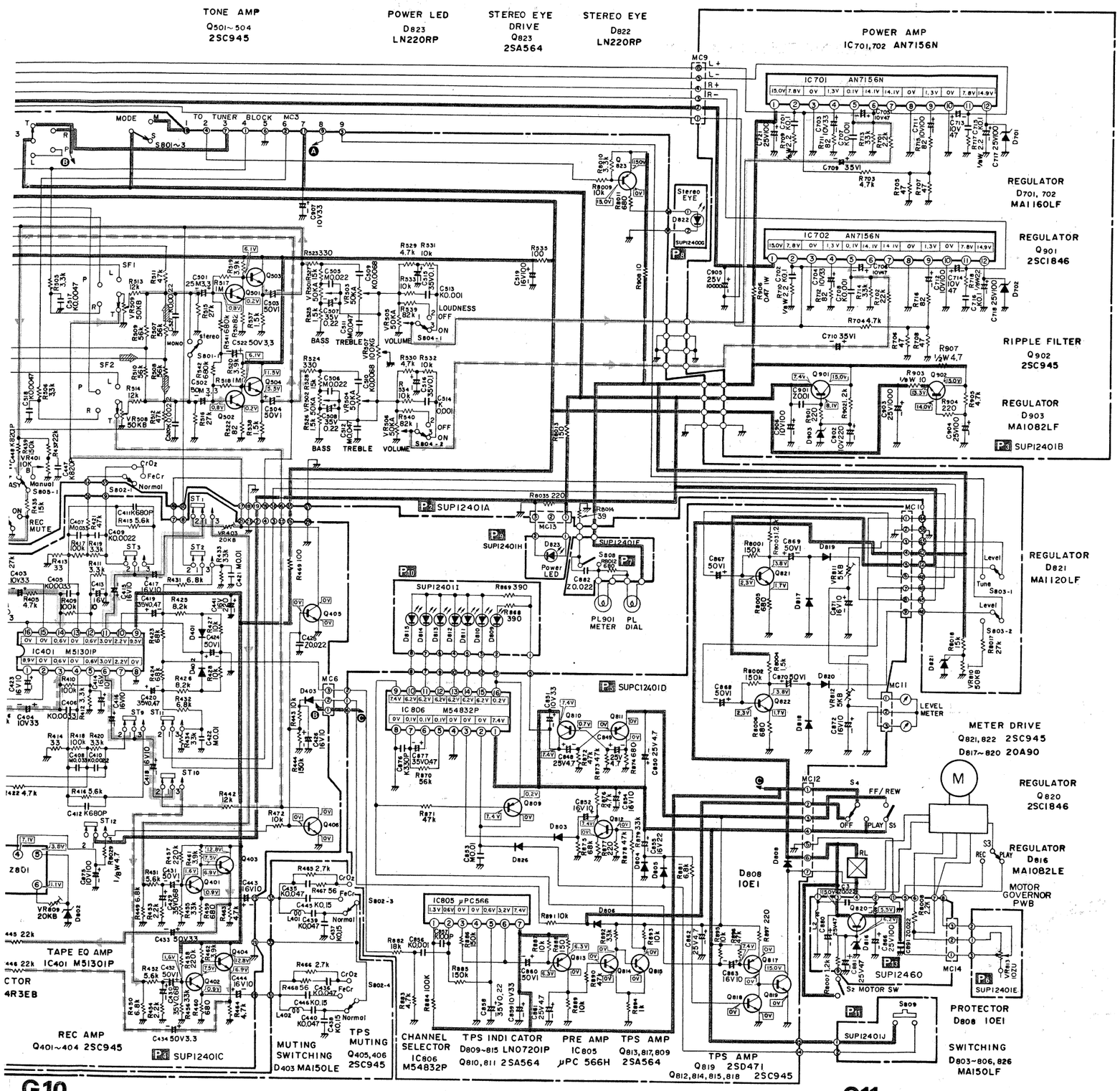
PIN NO	1	2	3	4	5	6	7	8
IC801	10.9V	5.3V	5.5V	0.7V	0V	5.3V	5.5V	5.5V
IC802	9.8V	5.3V	9V	5.3V	0.7V	4.6V	4.3V	5.8V
IC803	10.2V	11.2V	11.2V	0V	5.5V	5.5V	5.5V	5.8V
IC804	5.5V	5.5V	5.5V	0V	5.5V	5.5V	5.5V	10.9V

E10
SCHEMATIC DIAGRAM (AUDIO SECTION)



G9 G10 G11

CHEMATIC DIAGRAM (AUDIO SECTION)



NOTES:

1. SF1 ~ 4: FUNCTION SELECTOR SWITCH in "TAPE" position.
2. S1: POWER SWITCH in "OFF" position.
3. S2: MOTOR SWITCH in "OFF" position.
4. S3: REC/PLAY SELECTOR SWITCH in "PLAY" position.
5. S4: MUTING SWITCH in "OFF" position.
6. S5: FF/REW SWITCH in "OFF" position.
7. S6: AC/DC SELECTOR SWITCH in "DC" position.
8. S201-1, 201-2: RADIO BAND SELECTOR SWITCH in "AM" position.
9. S801-1 ~ 801-3: MODE/BEAT-PROOF SWITCH in "STEREO" position.
10. S802-1 ~ 802-5: TAPE SELECTOR SWITCH in "NORMAL" position.
11. S803-1, 803-2: METER SWITCH in "VU" position.
12. S804-1, 804-2: LOUDNESS SWITCH in "ON" position.
13. S805-1 ~ 805-3: REC MODE SWITCH in "EASY MATIC" position.
14. S806-1, 806-2: REC MUTE SWITCH in "OFF" position.
15. S811-1 ~ 811-3: ECHO SELECT SWITCH in "MIC" position.
16. S808: DIAL LAMP SWITCH in "OFF" position.
17. S809: TPS PROGRAM SWITCH in "OFF" position.
18. S810-1, 810-2: MIC POSITION SWITCH in "OFF" position.
19. ST1 ~ ST12: REC/PLAY SELECTOR SWITCH in "PLAY" position.
20. DC voltages are to be measured with digital voltmeter under no signal condition in AM or FM position based on negative terminal of battery.

IMPORTANT SAFETY NOTICE

THE SHADED AREA ON THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR SAFETY.
WHEN SERVICING IT IS ESSENTIAL THAT ONLY MANUFACTURER'S SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE SHADED AREAS OF THE SCHEMATIC.

shows power source line
shows playback signal (L-CH)
shows playback signal (R-CH)
shows recorded signal (L-CH)
shows recorded signal (R-CH)
shows echo signal

IMPORTANCE:

1. When servicing, any speaker leads must not be connected or touched to ground, otherwise power amplifier IC (AN7156N) should be broken.
2. Power amplifier IC (AN7156N) should be replaced for left and right channel together even if only one amplifier IC is defective.